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Propositions: An Ontological Inquiry

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Doctor of Philosophy

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Preface

Declaration

This dissertation is the result of my own work unless indicated otherwise. No part of this dissertation has been submitted for any other qualification.

Statement of Length

The dissertation contains approximately 73,000 words and thus does not exceed the word limit set by the Department of Philosophy.

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Abstract

It is more or less agreed that propositions are the meanings of sentences, the fundamental truth-bearers, and the objects of propositional attitudes. Associated with these roles, there are the following three questions: the Composition Question, the Representation Question, and the Attitude Question. Roughly, the first concerns the metaphysical relation between propositions and propositional constituents, the second concerns the ability of representing things as being such-and-so, and the third concerns how propositions can be the objects of propositional attitudes. I examine three mainstream theories of propositions: the Russellian theories, the possible-world accounts, and the Neo-Russellian theories, and argue that each fails to answer at least one of the questions and thus is incapable of providing an account of these propositional roles. Therefore, if a theory of propositions is able to answer these questions in a uniform manner, it would be a better theory of propositions. For what can be explained by other theories can also be explained by this theory, and it can also answer more questions than any other theory. In this dissertation, I defend a broadly Fregean theory of propositions, according to which propositions are *sui generis*, multi-analysable, and necessary beings, and argue that with respect to these propositional roles, it can provide a better account than other theories of propositions.

Introduction

This is the result of an ontological inquiry into propositions. An ontological inquiry usually comprises two questions: the *an sit* and the *quid sit* questions. For a putative entity x , the former concerns whether there is x , and the latter concerns what it is to be x . Now, let me start with the rather uncontentious claim that sentences can be used to express something, and the things expressed, whatever they are, possess some distinct features not had by sentences. To name a few: being the meanings of (declarative) sentences, being the fundamental bearers of truth-values, being the objects of propositional attitudes, and being the ways a world might be. We may call the things ‘propositions’ without taking any particular stance on their nature at the moment. Although the existence of propositions is often questioned for various reasons, it is clear that sentences do not possess all the features sketched above. This, surely, does not get us very far. I have merely shown that there are things expressible by sentences, and they play some roles different from those played by sentences, but showing that there are some differences between propositions and sentences is scarcely sufficient for the present purpose. For we may construct a parallel argument to show that objects are distinct from singular terms, and yet it leaves the question concerning the nature of objects unanswered. Presumably, the question ‘Are there propositions?’ is not as important as the question ‘What is it to be a proposition?’. The latter is usually more interesting and significant, or so it seems to me.

However, as we shall see later, different theories of propositions put their attention on different propositional roles. There is an immediate worry that, to some extent, we cannot do justice in comparing these theories, for we have no neutral ground to adjudicate whether a theory is better than others if the questions which they are concerned with are different in essence. For instance, a theory of propositions which is reductionistic in character may focus on the question what makes propositions represent things as being thus-and-so, while a theory on the opposite side may aim to explain how propositions can be individuated in a fine-grained manner in order to accommodate the cognitive difference found in the sentences ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’. One way to dismiss the worry is to develop an account which addresses the various concerns and

questions found in these theories. Below is a collection of these questions, associated with different propositional roles:

The Composition Question: What are propositions? What is the relation between propositions and their constituents? Are propositions contingent or necessary beings?

The Representation Question: If propositions are representational, what makes them so?

The Attitude Question: How can the theory of propositions address various puzzles concerning beliefs? With respect to the granularity of propositions, should we have a fine-grained account, a coarse-grained account or somewhere in the middle?

The theories which I discuss in chapters 3-5 are incapable of answering one or more questions, or so I argue. Thus, if a theory of propositions is able to answer these questions in a uniform manner, it would be a better theory. For what can be explained by other theories can also be explained by this theory, and it can also answer more questions than other theories. In this dissertation, I argue that a broadly Fregean theory of propositions, according to which propositions are *sui generis*, multi-analysable, and necessary beings, is the desired theory.

In Chapter 1, I consider three arguments for the dispensability of propositions. The first is that a theory of meaning *for natural languages* need not involve propositions, defended by Davidson (1967). The second is that propositions cannot be truth-bearers, argued by Jubien (2001). The final one is discussed, though not defended, by Hanks (2009), who shows that propositions cannot be substituted *salva veritate* in some attitude contexts, and thus propositions are not attitudinal objects. I shall argue that these arguments are not conclusive and provide some arguments for the indispensability of propositions by using some well-received theses, the objectual interpretation of quantifiers and the existence of modally valid arguments.

Then I give an elaboration of the constraints on a theory of propositions by considering three groups of questions which have been the main concern of one or more theories of propositions in Chapter 2. Take theories of propositions in which propositions have constituents as an example. One of the primary questions is to explain the relation between propositional constituents and propositions. Obviously, it cannot be mereological (in the classic sense). The reason is that there is a difference between the proposition that Sherlock loves Irene and the proposition that Irene loves Sherlock, and yet there is no difference in their constituents. Therefore, it violates the axiom of the uniqueness

of composition. Frege and Russell agree that the relation cannot be mereological, for they think that propositions are unities and thus differ from mere collections, or fusions, of propositional constituents. However, the unity condition cannot be spelt out in a satisfactory way, on pain of regress. In this chapter, I investigate the *quid sit* question concerning propositions in order to provide a basis for the present inquiry.

In Chapter 3, I provide a critical assessment of the Russellian theories of propositions by considering two representatives: Salmon (1986) and Fine (2007). Apart from the internal problems of each theory, I argue that the Russellian theories of propositions have no plausible explanation of the relation between propositions and propositional constituents. Moreover, based on the anti-existentialist argument presented in Plantinga (1983), I argue that the Russellian theories of propositions cannot consistently hold the following three theses: (1) Propositions are constituted by objects, properties, and relations. (2) Objects are contingent beings. (3) A proposition is true only if it exists. Most Russellians reject the third thesis (though not Williamson, who rejects the second), and propose a distinction between two notions of truth, the inner notion and the outer notion. I shall present a modified argument to show that the original problem persists.

I turn to another mainstream theories of propositions, the possible-world accounts, according to which, a proposition is a set of possible worlds (see Lewis (1986b)) or a function from possible worlds to truth-values (see Stalnaker (1984)) in Chapter 4. I argue that although the possible-world accounts are immune to the Composition Question (since propositions have neither structure nor constituents), they have the awkward consequence that when one believes a necessary proposition, one believes every necessary proposition, provided that propositions are the objects of propositional attitudes. I argue that even if the consequence can somehow be avoided, there are still problems related to the Attitude Question.

In Chapter 5, I consider another recent development of theories of propositions led by King (2007) and Soames (2010b, 2014a), who argue that propositions are naturalistic facts, or cognitive event types, respectively. Both King and Soames think that the Representation Question is the most prominent question with respect to propositions, but there is a discrepancy on how best to explain the representational features of propositions. I argue that they overestimate the importance of the Representation Question, and their theories are no better than the previous ones with respect to other questions.

Lastly, in Chapter 6, I develop a theory of propositions which is *essentially* Fregean. It is Fregean in the sense that propositions are *sui generis* and multiply analysable, like Fregean propositions. But it differs from Frege's theory of propositions in some important aspects. For example, I take truth and falsity to be properties of propositions, rather than objects to which sentences refer. Another major difference is that I do not accept that

cognitive difference implies semantic difference. Whether or not the theory developed is *faithful* to Frege is not the main concern, although some exegetical issues are discussed. Finally, I argue that this is the theory of propositions which can answer the *quid sit* question characterised in Chapter 2.

Chapter 1

Introducing Propositions

Propositions are said to be meanings of sentences, bearers of truth-values, and objects of propositional attitudes. But are they indispensable? Perhaps we can have other entities which are more fundamental or more natural to play these propositional roles. I shall begin the inquiry with a distinction between two types of ontological questions, the *an sit* question and the *quid sit* question in section 1.1. In the case of propositions, the former concerns whether there are propositions, and the latter concerns what it is to be a proposition. In this chapter, my focus is restricted to the former, ‘Are there propositions?’ Although an affirmative answer might be achieved simply by positing that there are propositions, I intend to dispel the hostility towards the existence of propositions held by some philosophers. The reason for the distinction is that, putting aside the outright rejection of x for the moment, arguments against the existence of x often rely on responses to the *quid sit* question. Suppose that there is an ontological debate about whether x exists. One strategy is that if there is some fundamental entity y , which is able to fulfil the roles which x is supposed to fulfil, then we may conclude that the existence of x is called into question. Similar patterns of reasoning are demonstrated in arguments made by Davidson (1967) and Jubien (2001). These arguments, together with another argument which presents a puzzle for those who take propositions to be the objects of propositional attitudes, will be discussed in section 1.2. Furthermore, in section 1.3, it is argued that we can have a positive answer to the *an sit* question without relying too much on the views one might take regarding the *quid sit* question. By assuming that we can infer that something was said by John from John said that P , I present an argument for the existence of propositions in the spirit of the objectual interpretation of quantifiers. Another argument to be considered is given by Merricks (2015), who argues that the existence of propositions can be inferred from the fact that there are modally valid arguments. Both arguments use assumptions which seems to be weaker in the sense that both the objectual interpretation of quantifiers and the fact that there are modally

valid arguments are commonly taken for granted.

1.1 The *an sit* and *quid sit* Questions

In general, the *an sit* and the *quid sit* questions are not independent of each other. In order to answer the *an sit* question, it is often the case that we must have some grip on the *quid sit* question in advance. Without either some pre-theoretical or theoretically-bounded understanding of what it is to be x , it seems futile to assert whether or not x exists. The distinction between the *an sit* and the *quid sit* questions can be traced back to Aristotle's *Metaphysics*, where he says:

Some things then are called prior and posterior ... in respect of nature and substance, i.e. those which can be without other things, while the others cannot be without them—a distinction which Plato used. ... If we consider the various senses of 'being', firstly the subject is prior (so that substance is prior); secondly, according as capacity or actuality is taken into account, different things are prior, for some things are prior in respect of capacity, others in respect of actuality.¹

On one interpretation of Aristotle, the passage suggests that our ontological concerns are mainly about dependence. That is, if we want to know the nature of something, what it depends on is central to the inquiry. And, if we want to know whether something exists, we may ask whether its existence depends upon something else. In fact, the question about the fundamental entities of reality can be reformulated in this fashion. For instance, Fine (1995) says,

Metaphysics has two main areas of concern: one is with the nature of things, with what they are; and the other is with the existence of things, with whether they are. Considerations of dependence are relevant to both.²

Although the present inquiry has little to say about ontological dependence, the distinction between the *an sit* and the *quid sit* questions is useful for framing the debates about propositions. On the one hand, as we shall see later in section 1.2, the usual strategy for arguing against the existence of propositions is that the existence of propositions is dubious because they do not have the nature which they are supposed to have. For example, it is often accepted that propositions are the meanings of sentences. But Davidson (1965) argues that there are some constraints on meanings, or on a theory of meaning,

¹Aristotle (1908), *Metaphysics*, Book V, 1019a1-14

²Fine (1995), p.269.

which cannot be satisfied by propositions. Strictly speaking, Davidson is not denying the existence of propositions; rather, the thesis is that propositions do not have the use which we associate with meanings. If the argument is sound, we may start to wonder whether propositions are redundant. The argument starts with an answer to the *quid sit* question of propositions: propositions are supposed to be meanings of sentences, and it ends with a dismissive attitude towards the *an sit* question. On the other hand, for other philosophers who agree that there are propositions, one of the issues is about what kind of entity can play the propositional roles—whether propositions can be reduced to other entities or whether they are *sui generis*. Frege thinks that propositions must be some kind of *sui generis* entities, otherwise we cannot explain the cognitive difference between ‘ $a = a$ ’ and ‘ $a = b$ ’. Other philosophers may be sceptical about the assumption of *sui generis* entities and propose that we can reduce propositions to other fundamental, or well-founded, entities. Here, both sides can be regarded as providing an affirmative answer to the *an sit* question, and may agree about answers to the *quid sit* question, but they disagree over what entities can play the propositional roles.

The following are some preliminary answers to the *quid sit* question. Since Frege, philosophers have said many—perhaps too many—things about the nature of propositions. The following list is a quick summary of some theses on what propositional roles are:³ the meaning of sentences (Frege (1918)), the truth-bearer (Frege (1918)), the object of propositional attitudes (Frege (1892)), the semantic value of ‘that’-clauses (Frege (1892)), one of the things which modal properties can be attributed to (perhaps Adams (1974)), the object of perceptual experiences (Soames (2010b)), or the truth-condition of sentences (Stalnaker (2012)). It should be added that this list of propositional roles does not exhaust all the current options, let alone other possible options. Perhaps philosophers debate more on what roles propositions should or could play rather than whether propositions exist. Call the first three Fregean theses listed above the set of minimal propositional roles (henceforth, the Minimal Roles) because they do not say anything too substantial with respect to the ontological nature of propositions. The Minimal Roles are accepted by most philosophers who provide an affirmative answer to the *an sit* question about propositions as well, although philosophers may disagree on other issues, e.g. whether propositions are structured entities or how they acquire the ability to represent the world. Someone might disagree with the choice of the Minimal Roles and argue that a successful theory of propositions should satisfy all the roles above. There is an immediate worry, however, as indicated by Lewis (1986b): ‘the conception we associate

³Not everyone on the list uses the term ‘proposition’ to refer to what it refers to in this thesis, and the most prominent example is Frege, who uses the term ‘Gedanke’ (usually translated as ‘thought’). Since our discussion of ontology should not be hampered by our linguistic preference, it does not seem pernicious to take what Frege said about *Gedanke* as about propositions.

with the word “proposition” may be something of a jumble of conflicting *desiderata*.⁴ Perhaps no conception can consistently satisfy all the above roles. Furthermore, if what we have set for the *quid sit* question is somehow inconsistent, this is also a conclusive reason to say that there is no unified conception of propositions, which may lead us to doubt whether there are propositions. In any case, it is evident that there is no account of propositions which could satisfy all the roles above. Thus, a certain trade-off must be made. Although it is easy to say that propositions, whatever they are, cannot play all the roles to which philosophers since Frege have assigned them without running into trouble, it is exceptionally difficult to judge which roles can (or should) be fulfilled by propositions and give an informative account. I shall leave the difficult task to Chapter 2, and for the rest of this chapter, I turn to the *an sit* question about whether there are propositions by considering some arguments against the existence of propositions.

1.2 No Propositions for Philosophy

An argument against the existence of propositions is plausible if it shows that the propositional roles can be fulfilled by other entities. This is loose talk, of course, since there is not yet an established consensus on the answer or answers to the *quid sit* question among theories of propositions. And it makes no sense to include every answer to the *quid sit* question because Lewis’s worry would be inevitable. However, the Minimal Roles may be of some help here. Arguments against other theories of propositions, or, more radically, against the existence of propositions, often rely on the satisfaction of the Minimal Roles. A classic example of the former would be a use of Frege’s puzzle to argue against the standard Russellian theory of propositions, according to which a proposition consists of objects, properties, and relations.⁵ The Fregean argues that there is a cognitive difference between the two sentences ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’, and thus propositions cannot be constituted by objects, properties and relations. For the reference of ‘Hesperus’ and ‘Phosphorus’ is the same, the planet Venus, and the relation denoted by ‘is’ is also the same, the identity relation. Yet, it seems to be the case that the former proposition is *a priori* but the latter is *a posteriori*, and the Russellian could not capture the difference in terms of Russellian propositions alone. Since the standard Russellian theory does not satisfy the Minimal Roles, says the Fregean, it is not a good theory of

⁴Lewis (1986b), p.54

⁵One might think that there are other propositions whose constituents are not objects, properties and relations, e.g. conjunctive propositions or general propositions. If that is the case, the term ‘Russellian proposition’ should be read as ‘atomic Russellian proposition’, which denotes propositions consisting of objects, properties and relations. In any case, conjunctive or general propositions will be specified in due course. The same goes for other theories of propositions.

propositions.⁶

Although the Minimal Roles do not exhaust all possible answers to the *quid sit* question, they provide some minimal constraints for what a proposition is. To recapitulate, the Minimal Roles are:

(M1) Propositions are the meanings of sentences.⁷

(M2) Propositions are the bearers of truth and falsity.⁸

(M3) Propositions are the attitudinal objects (the objects of propositional attitudes).

Now, if it could be shown that regardless of what conception we have of propositions, the Minimal Roles cannot be held without inconsistency, it seems convincing to say ‘No, propositions do not exist’ to the *an sit* question. After all, if not the Minimal Roles at least, what roles would we want propositions to play? Thus, it is a reasonable strategy to argue against the existence of propositions by showing some, if not all, of the Minimal Roles to be untenable. In what follows, I shall consider three arguments against the existence of propositions. In Davidson (1967), the road taken is to argue against the claim that propositions are the meanings of sentences. In Jubien (2001), it is the thesis that propositions are truth-bearers which is argued against. The argument by Jubien is in essence an application of the famous argument against numbers as sets presented in Benacerraf (1965). Roughly, Benacerraf argues that numbers cannot be sets because there are equally good, but extensionally different set-constructions of numbers. Using the same strategy, Jubien argues against the thesis that propositions can be reduced to set-theoretical constructions. However, even if the argument is sound, what it shows is that propositions cannot be sets, rather than that there are no propositions. Jubien further argues that in order for propositions to be truth-bearers, they must represent things as being thus-and-so. Moreover, it is claimed that representation is something intentional, or something which cognitive agents do, so there are no propositions. Lastly, we shall examine the argument against propositions as attitudinal objects characterised in Hanks (2009). Roughly, Hanks argues that propositions cannot be substituted *salva veritate* in some attitude contexts, and thus propositions are not attitudinal objects. Strictly speaking, the proper conclusion to draw from the argument, if it is valid, is that propositional attitudes are not two-place relations between subjects and propositions. In

⁶A crucial assumption in Frege’s puzzle is that cognitive difference implies semantic difference. In other words, if two sentences are cognitively different, it must be the case that they express different propositions. In Chapter 6, I shall challenge this assumption.

⁷The term ‘meaning’ is notorious for its real definition. Here I apply the understanding from Frege, the meaning of a sentence is the same as the semantic content of the sentence relative to contexts.

⁸I leave the possibility of a third (or more) value open rather than claiming that the principle of bivalence is the correct one, although the principle is assumed, throughout the thesis.

effect, it calls for a modification of the Minimal Roles rather than a denial on the existence of propositions. I shall also discuss some responses to the three arguments against the existence of propositions.

1.2.1 Against Propositions as Meanings

Davidson's argument against the view that propositions are meanings of sentences can be regarded as the starting point of his endeavour to give a suitable theory of meaning for natural languages, where Davidson instigated the revolution of studying meaning in terms of the concept of truth. Roughly, according to Davidson, a theory of truth would give the meanings of expressions in a language *L*. The underlying thought is that in order to explain linguistic acts, we need not appeal to undefined linguistic or semantic notions, which are supposed to be intensional for Davidson. Instead, we can take the concept of truth as primitive and construct a purely extensional theory of meaning based on the T-sentences generated from the truth theory, and it requires no more than the logical notion of material equivalence. Most notably, the thesis that propositions are meanings of sentences (of natural languages) is rejected outright. For the existence of propositions cannot help us construct a theory of meaning or understand the language at all. As Davidson says, 'My objection to meanings in a theory of meaning is not that they are abstract or that their identity conditions are obscure, but that they have no demonstrated use'.⁹ What does he mean? For Davidson, a theory of meaning ought to tell us how to understand the language in question. In Davidson (1967), he specifies that a theory of meaning should be an empirical theory of a given language, and the work for philosophers is to describe the form of the theory and to explain how natural languages work. The latter phrase might be a bit vague, but we can understand it as saying that the meanings of sentences depend upon the meanings of words in natural languages, and our task is to show how this is possible. Davidson says,

... the conclusion may be stated simply: a theory of meaning for a language *L* shows 'how the meanings of sentences depend upon the meanings of words' if it contains a (recursive) definition of truth-in-*L* ... To know the semantic concept of truth for a language is to know what it is for a sentence—any sentence—to be true, and this amounts, in one good sense we can give to the phrase, to understanding the language.¹⁰

In this paper I have assumed that the speakers of a language can effectively determine the meaning or meanings of an arbitrary expression (if it has a

⁹Davidson (1967), p.21.

¹⁰Davidson (1967), p.23-4

meaning), and that it is the central task of a theory of meaning to show how this is possible.¹¹

There are several issues worth discussing. Firstly, it is assumed that competent speakers of a language can know the meaning of any meaningful sentence. Secondly, it is taken for granted that a theory of meaning must show how the meanings of sentences depend upon the meanings of words. Thirdly, the theory of truth developed by Davidson can explain the phenomena as required. Fourthly, speakers of a language cannot be counted as understanding the language unless they know what it is for a sentence to be true. Since competent speakers do know what it is for a sentence to be true, and our understanding has a ‘recursive structure’, the meaning has a ‘recursive structure’ as well. An implicit assumption is that a theory of meaning is a theory of understanding, which results, not surprisingly, in the famous dismissive remark on ‘meanings’ (understood as propositions):

Paradoxically, the one thing meanings do not seem to do is oil the wheels of a theory of meaning—at least as long as we require of such a theory that it non-trivially give the meaning of every sentence in the language.¹²

The above remark can be seen as an inheritance from Quine’s hostility to meanings as abstract entities. Notice, however, that in Davidson’s argument, the existence of propositions is not directly denied. Rather, the claim is that from the perspective of a theory of meaning, which, according to Davidson, needs to guide us in understanding the language, the existence of propositions does not come in handy. Of course, it is necessary that an alternative theory other than the one constructed in terms of propositions must be given. Davidson does not fail to meet the expectation here. Theorems of a semantic theory, according to Davidson, are not pairings between sentences and propositions, but rather T-sentences of the schema, ‘*S*’ is true (in *L*) iff *p*.¹³ Since the task of a semantic theory is to understand the language, Davidson argues that knowing the T-sentences of a sentence is sufficient for someone to understand the language.

Does the argument constitute a rejection of the existence of propositions? Not if we do not take the theory of meaning to be a theory of understanding. Whether we should follow Davidson’s assumption is a side issue to the present inquiry, however. A more interesting point is that even if we grant that the argument against propositions as meanings is valid, other Minimal Roles remain intact. If the aim is to show that propositions are pleonastic or even do not exist, there must be some stand-ins to play the propositional roles. For the purpose of argument, we may further grant that sentences are truth-bearers or are

¹¹Davidson (1967), p.35

¹²Davidson (1967), p.20

¹³Here and henceforth, I use ‘iff’ as short for ‘if and only if’.

subject to truth-conditions as shown in the T-schema, but the third role, propositions as the attitudinal objects, is still left without a proper explanation. In awareness of the problem, Davidson (1968) replies that a that-clause, such as *S believes that p*, should be analysed as *S believes that. p*, where ‘that’ is taken as a demonstrative referring to *p*. Yet, suppose that *p* is an English sentence and *S* is a non-English speaker. How does *S* stand in a belief or belief-like relation to *p*? Davidson’s reply is that *S* stands in a belief relation to some sentence token which samesays the utterance of *p*. Now, the samesaying relation between sentence tokens and utterances is itself a murky one. However, we need not pursue the point here. What is relevant to the present inquiry is whether the claim that propositions are meanings of sentences amounts to the claim that a theory of propositions is a theory of meaning, if a theory of meaning is the one which Davidson has in mind. I think not. First of all, it is plausible to say that objects are the reference of singular terms or of proper names. But it is absurd to say that a theory of objects is *ipso facto* a theory of reference. Whereas the former is a theory in ontology, concerning, perhaps, the nature and the essence of objects, the latter is a semantic theory, concerning the mapping between linguistic items and things in the world or abstract entities. Obviously, we would not conflate a theory of objects with a theory of reference; but why should we do so for a theory of propositions and a theory of meaning? However, Davidson can reply that if propositions are supposed to be the meanings of sentences, a theory of meaning which makes no use of propositions would give us sufficient reason to doubt whether propositions are dispensable. I agree that it is possible that we can have a theory of meaning without propositions, if we understand the term ‘meaning’ as Davidson does. Yet, it is not my claim that a theory of propositions is a theory of meaning of natural languages. Thus, while the considerations from how to understand a natural language may be true, it undermines neither the claim that propositions are meanings of sentences, nor the claim that propositions exist.

1.2.2 Against Propositions as Truth-bearers

In Jubien (2001), it is argued that every theory of propositions on the table either suffers from Benacerraf’s dilemma or is unable to give an account of the representational feature of propositions. In the following, the argument is unpacked in detail. First of all, defending one theory of propositions over another, as an ontological project, is a quest to establish what kind or kinds of entities *essentially* have the representational feature, i.e. being the fundamental truth-bearers. Any theory of propositions in which propositions are surrogates or models of truth-bearers, such that the ability to be true or false is inherited from things other than propositions, e.g. intentional activities, will sabotage the ontological defence. Secondly, if there are several possible candidates for propositions,

each of which is equally plausible, then they are simply surrogates or models of propositions. To say that propositions are one rather than the other is merely an artificial reconstruction and cannot be defended. This is in effect an application of Benacerraf's dilemma, in which Benacerraf (1965) argues that numbers cannot be sets because we have many ways to represent numbers in terms of sets, and there is no non-arbitrary reason to say one is better than the other. Thirdly, even though it is possible to put aside Benacerraf's dilemma, we still lack an explanation of how propositions by themselves are capable of representing the world as being thus-and-so. Therefore, propositions do not exist.

Taking Benacerraf's argument at face value, it does not show that numbers do not exist. Rather, what it shows is that numbers cannot be sets. Thus, to adapt the argument against propositions would be to show that propositions cannot be sets. To this point we may agree, but does it amount to the conclusion that propositions do not exist? After all, Benacerraf accepts that there are numbers but only demurs that they can be reduced to sets. The core idea of Jubien's argument, I take it, is that in order for propositions to be the truth-bearers, they must be able to represent the world. Roughly, if the world is just as what is represented by a proposition (we may have different options explaining what is being represented, e.g. states of affairs, facts, or portions of reality), the proposition is true. Otherwise, it is false. Now we shall focus on what constitutes the ability to represent. Jubien says,

The essence of a proposition is to represent. Propositions represent the world as being one way or another. If they didn't represent in this way, it would be utterly implausible to view them as the ultimate bearers of truth-values.¹⁴

In the end, it's implausible to think that any genuine Platonic entity could represent on its own cuff. Representation is an "intentional" or "outer-directed" relation. If x represents y , then x has a part that "stands for," "refers to," or is otherwise "about" y . This is the admittedly vague but undeniable heart of the notion.¹⁵

This line of thought is quite familiar in contemporary literature on propositions, i.e. we can find similar arguments in King (2007), Soames (2010b), and Hanks (2015), although they differ with respect to what explains the representational feature of propositions.¹⁶ However, the argument is not as convincing as it is supposed to be. There are, I think, two cases concerning the ability to represent. Case (1): we may use anything to represent

¹⁴Jubien (2001), p.50

¹⁵Jubien (2001), p.54

¹⁶A detailed discussion of some of these views will be carried out in Chapter 5.

anything. Examples are like Gödel numbering for symbols and formulas, or colours for different political parties. This is a rather perspicuous scenario where representation may take place. What seems to be problematic is the following case. Case (2): the thing itself is capable of representing something in a certain way. Examples are Fregean propositions (thoughts) and the conception of propositions defended in Stalnaker (2012). Since philosophers who share Jubien's view are mostly hostile to Fregean propositions and a full defence of the Fregean theory of propositions is the main theme in Chapter 6, here I shall only consider how Stalnaker would reply to the challenge. As an actualist, Stalnaker accepts that possible worlds are properties of the actual world, and propositions are sets of possible worlds, or equivalently, functions from possible worlds to truth-values. Moreover, propositions, under this conception, are truth-conditions. Sentences can be used to represent propositions, and it is this relation which requires further explanation. In other words, propositions do not have to represent a world as such for them to be truth-bearers, whatever the term 'truth-bearers' might mean. A set of maximal consistent propositions is the way a world might be. Although there are some problems with actualism, e.g. modal properties about merely possible individuals, I see no plausible objection against the actualist conception of propositions. Thus, I am sympathetic with most of Stalnaker's defence except his further claim that propositions are contingent beings, which we shall look at in Chapter 4. As for now, I believe this constitutes a plausible defence against the claim that propositions as abstract entities cannot be the fundamental truth-bearers.

1.2.3 Against Propositions as Attitudinal Objects

Hanks (2009) characterises three conditions for propositions to be attitudinal objects:

- (K1) Attitude verbs (including 'believe', 'know', and 'fear') express a two-place relation between the subjects and the propositions.
- (K2) 'that'-clauses refer to propositions.
- (K3) An attitude report of the form '*A* vs that *p*' is true just in case *A* stands in the *v*-ing relation to the proposition designated by 'that *p*'.¹⁷

Even though the three conditions may seem natural, especially if we follow the Fregean theses, Hanks argues that they jointly produce some puzzles. To begin with, let us consider the implications of the three conditions. Following them, it seems that the following two propositions are truth-conditionally equivalent:

- (1) John believes that Fido is a dog.

¹⁷Hanks (2009), p.470

- (2) John believes the proposition that Fido is a dog.

Yet, things are not so with the following pair:

- (3) John fears that Fido will die.
(4) John fears the proposition that Fido will die.

Even if we may hold that it is possible for a subject to fear a proposition, (3) and (4) obviously have different truth-conditions. It is possible that John fears that Fido will die someday, but has no equivalent emotion towards the proposition that Fido will die. There are several proposed solutions to this puzzle. Firstly, (K1) and (K2) can be dropped. In place of it, we may opt for a one-place predicate analysis or a multiple relation analysis. It should be noted that these two proposed solutions abandon the thesis that propositions are attitudinal objects. Thus, plausible as they may be, they do not count as a defence for propositions as attitudinal objects. Secondly, we can simply contest the puzzles as being counter-examples. As Schiffer (2003) says, ‘there is no good reason to suppose these failures of substitutivity constitute counter-examples to the claim that the that-clauses involved in them refer to propositions’.¹⁸ Consider the principle that singular terms refer to objects, which seems to be even more plausible than (K2). According to it, if ‘Pavarotti’ and ‘the greatest tenor’ refer to the same object, the following two expressions should be logically equivalent:

- (5) The Italian singer Pavarotti never sings Wagner.
(6) The Italian singer the greatest tenor never sings Wagner.

It is clear that these two expressions are not equivalent, and thus even if we granted that singular terms refer to objects, it does not necessarily follow that singular terms which have the same reference are substitutable *salva veritate*. Schiffer argues that if the above examples do not constitute a counter-example to the principle that singular terms refer to objects, then the puzzle should not be a reason to give up (K2) either. However, Schiffer in the end admits that he has no promising solution to the asymmetry of verb behaviours between the group of verbs such as ‘believe’ and ‘know’, and the other group. Lastly, I think that we may distinguish propositional attitude verbs from non-propositional ones and contend that the three conditions only hold for the former. We may avoid puzzles raised from ‘fear’ and other similar verbs and still keep the good cases of ‘believe’ and ‘know’. The problem is that we lack a principled way of dividing them. In any case, the substitution puzzle is not a counter-example to the thesis that propositions are attitudinal objects, any more than the examples (5) and (6) show that singular terms refer to objects. There is also a trend of dodging the problem by offering some alternative analyses of

¹⁸Schiffer (2003), p.95

propositional attitudes. For instance, Russell at one time argues that ‘ S believes that p ’ should not be analysed as a two-place relation between the subject S and the proposition p . On the contrary, the belief demonstrates a multiple relation between the subject and the constituents of the proposition. For example, ‘Othello believes that Desdemona loves Cassio’ is analysed as a four-place relation $B(\text{Othello}, \text{Desdemona}, \text{loves}, \text{Cassio})$, where the relata are three objects and a relation.¹⁹ Although Russell develops this account to get rid of propositions, on pain of his inability to explain what false propositions are, many follow Russell in developing the multiple relation theory of judgments and call the attitudinal objects propositions.²⁰ Therefore, problems raised from the puzzle may be avoided, and they can still affirm the existence of propositions by denying that propositional attitudes are two-place relations. However, whilst this may work in some cases, I don’t think it would work in a systematic way.

In sum, the Minimal Roles are safe in the sanctuary. As long as we do not take a theory of propositions to be a theory of meaning in the sense of Davidson, which we need not, the thesis that propositions are meanings of sentences is immune to Davidson’s challenge. And the argument against propositions as truth-bearers would somehow bury the actualists into the grave, which seems too simple to be true. Moreover, I do find Stalnaker’s defence congenial, and a similar defence is also available for other theories of propositions. Lastly, the case against propositions as attitudinal objects is not conclusive, as we have a similar puzzle for singular terms, but it does not commit us to giving up the thesis that the referents of singular terms are objects. The source of the puzzle might very well be that co-referential terms should be substitutable *salve veritate*. Since the arguments discussed are not successful in denying the existence of propositions, we can more or less rest assured with the positive answer to the *an sit* question. But it is not completely satisfying if no positive argument for the existence of propositions can be given, so I shall consider two such arguments in the next section.

1.3 Make Propositions Great Again

We have seen that none of the above arguments have successfully argued against the existence of propositions. In other words, for the *quid sit* question, holding that propositions are the meaning of sentences, the truth-bearers, and the attitudinal objects does not trap us into inconsistency and thus force us to give a negative answer to the *an sit* question. This gives us some reason to claim that propositions do exist. I say ‘some reason’ because

¹⁹For a detailed discussion of Russell’s original account and later changes, see Griffin (1985).

²⁰See Moltmann (2013), Chapter 4. Although she prefers to call them attitudinal objects rather than propositions, these objects share most of the features propositions have, e.g. they have truth-conditions and are the primary truth-bearers. It seems that Soames (2014a) is also developing a similar account.

there might have been other undiscovered arguments showing that any theory which accepts the existence of propositions would lead to problematic consequences. Therefore, in order to motivate the present inquiry into theories of propositions, I shall present some arguments for the existence of propositions without presupposing too much about their nature. Of course, what I think to be neutral may be too much for potential opponents, but as we shall see, none of them requires us to have a particular view on meaning or representation, unlike what Davidson or Jubien does. The first requires an objectual interpretation of quantifiers, and the second requires the existence of modally valid arguments.

1.3.1 Quantifying Into Existence

Before we consider the first argument, one might wonder: why is the classic One Over Many argument, which is used to establish the existence of universals, ignored? For several reasons, it seems to me that the argument does not apply to propositions. The One Over Many argument is sometimes presented as follows: there are three objects before me, say, a table, a book, and a flag. They are all green, and thus they resemble each other. Therefore, they have something in common, which explains their resemblance. That ‘thing’ is obviously a universal. Thus, universals exist. If we want to modify the argument for propositions, it is very likely that we would have to stop at the end of the following line: there are three sentences written in a book, say, ‘Snow is white’, ‘La neige est blanche’, and ‘Schnee ist weiss’. The reason that we stop here is that these sentences do not resemble each other in some natural sense, even though we may say that they express the same proposition. To put it in another way, the proposition that snow is white is irrelevant or merely remotely relevant for their resemblance. I think that the argument cannot proceed because the relation between particulars and universals and the relation between sentences and propositions are different. Sentences do not exemplify, instantiate, participate in, or what have you, propositions. Sometimes we say that propositions can be shared in the sense that different sentences, intra-lingual or inter-lingual, may express the same proposition. This way of talking is very misleading if it is interpreted as different particulars having the same universal. I am not saying that the sentences do not resemble each other, but only that the way that the sentences resemble each other may have nothing to do with propositions. What they have in common, in terms of resemblance, could be that they belong to natural languages. Thus, the universal (though this might look a bit artificial) natural-languagehood is required to explain the resemblance. Yet, what if someone insists that they resemble each other because they express the same proposition? The response seems to have some cogency because, presumably, there is a way in which ‘Snow is white’ and ‘La neige est blanche’ resemble each other, but ‘Snow is white’ and

other arbitrary sentences, which do not express the proposition that snow is white, do not. Does this example provide some evidence for the existence of propositions in order to explain the resemblance in question? I think not. Strictly speaking, the example only requires something to explain their resemblance, but it is not necessary that the source of the resemblance is a proposition. Following the One Over Many argument, the most plausible candidate may be the universal of having-the-same-truth-condition, or something similar. After all, what the One Over Many argument purports to show is that in order to explain the resemblance between particulars, there must be some universals which explain the resemblance. Therefore, I find it implausible to demonstrate the existence of propositions in terms of the One Over Many argument.

In any event, we still have other options. The Quantifying Into Existence argument is one of the most plausible ones, as I see it. An example is that from the fact that Socrates drank the hemlock which the soldier gave him, the following statements are true:²¹

- (7) Socrates drank something.
- (8) The thing Socrates drank was hemlock.
- (9) What Socrates drank was what the soldier gave him.

(7) - (9) jointly entail that there is something which Socrates drank, which was a hemlock and which the soldier gave to him. Its logical form can be put as follows:

- (10) $\exists x(\text{Socrates drank } x \wedge x \text{ is hemlock} \wedge \text{the soldier gave } x \text{ to him})$

The logical form seems correct, and its correctness does not depend upon any particular subject matter of the inferences. Similar results can be duplicated for entities of a more abstract sort. Suppose that Socrates says that wisdom is a virtue, which is believed by Plato, and the corresponding inference begins:

- (11) Socrates says something.
- (12) The thing which is said by Socrates is possibly true (or false).
- (13) The thing which Socrates says is believed by Plato.

The logical form of what they jointly entail is:

- (14) $\exists x(\text{Socrates says } x \wedge x \text{ is possibly true (or false)} \wedge x \text{ is believed by Plato})$

Since what is said by Socrates is believed by Plato, the thing cannot be a sentence token. Speaks concludes, rather hastily, that from (14), it follows that propositions exist, since there is some x which is the content of sentences or utterances, the truth-bearer, and the attitudinal object. It should be noted that although we must take the objectual

²¹I adapted the example presented by Speaks in King et al. (2014).

interpretation of quantifiers in order to reach the desired result, it is not pernicious. Yet, there is a worry that it is not sufficient to show that that type of entity is a proposition. At most, what we have here are propositional surrogates, which might not imply the existence of propositions at all. (Think of Davidson's remarks that a sentence token *samesays* with an utterance!) However, the debate must stop here. If what is proved is merely the existence of some propositional surrogates, then so be it. It appears that whether the thing being quantified over is a proposition or a propositional surrogate is merely a verbal issue. As noted in section 1.1, the more interesting thing to do is setting up the answer to the *quid sit* question. Thus, whether the thing introduced by the Quantifying Into Existence argument is a proposition or something else is no longer a concern. Since it is shown that propositions or propositional surrogates exists, it suffices for present purposes.

1.3.2 The Argument from Modally Valid Arguments

It is worth, however, considering another argument for the existence of propositions. For anyone who believes that there are modally valid arguments, the argument may turn out to be highly cogent for the existence of propositions. Merricks (2015) argues for the existence of propositions from the existence of modally valid arguments. Modally valid arguments differ from logically valid arguments in the sense that the former arguments are valid iff necessarily, if the premises are true, then the conclusion is true, and the latter ones are valid in virtue of their forms. Yet, the distinction drawn is not used to say that logically valid arguments are not modally valid. Quite the contrary, arguments which are logically valid are often regarded as modally valid, though the reverse does not hold.²² Unless one is sceptical about modality, it seems beyond doubt that there are modally valid arguments. Now, suppose that there is an object x .

(15) x is a uniformly coloured object.

(16) x is red.

(17) Therefore, x is not green.²³

²²Merricks (2015) disagrees. It is argued that premises and conclusions in logically valid arguments are sentences, while premises and conclusions in modally valid arguments are propositions. However, the distinction endorsed by Merricks does not affect the present point.

²³In Merricks (2015), the example is as follows:

1. All men are mortal
2. Socrates is a man.
3. Therefore, Socrates is mortal.

This can be turned into a logically valid argument. Hence, it would obfuscate Merricks's original argument for the existence of propositions in terms of modally valid arguments, but not logically valid arguments. The current example is adapted from Lowe (2012).

(15) is true just in case x is a uniformly coloured object, (16) is true just in case x is red, and (17) is true just in case x is not green. The argument is modally valid, which means that the conclusion *necessarily*, though not *logically necessarily*, follows from the premises. From this, Merricks argues that none of (15)-(17) could be sentences because sentences, as strings of words, are open to interpretation, such that every sentence could have a different truth-condition from what it actually has. For instance, if it is possible that (15) is true just in case that Fido is a dog, (16) is true just in case all cats are on the mat, and (17) is true just in case that the moon is made of cheese, it is obvious that the argument is no longer modally valid. It follows that there are certain truth-conditions which cannot be assigned to them without ruining their modal validity. Yet, sentences are merely (grammatical) strings of words, which do not have their truth-conditions essentially, and thus whatever occupies the premise position and the conclusion position of modally valid arguments, they are not sentences. Merricks thinks the plausible conclusion to draw is that (15), (16), and (17) have their truth-conditions essentially. Otherwise, the argument would not be modally valid. Given that sentences only have their truth-conditions contingently, the premises and conclusions in modally valid arguments are not sentences.

Now, in order to bring in the existence of propositions, consider the principle that if something is necessarily true (or false), then it necessarily exists. It appears to be a cogent principle unless the difference between *true in* and *true at* a world, is made. According to Adams (1981), a proposition P is *true in* a world just in case were that world actual, P would be true, and a proposition P is *true at* a world just in case P correctly characterises that world. We can, at the moment, substitute ‘proposition’ for any propositional surrogate to avoid question-begging. Anyway, the point is that to say that when P is necessarily true, there are two possible cases: P is *true at* every world, and P is *true in* every world. The argument given by Merricks does not stand if necessary truths (or some of them) are those which are merely *true at* every world, but not *true in* every world, since the fact that P is *true at* every world does not imply P ’s existence at every world. A way out—in fact the way which Merricks adopt—is to reject that necessary truths are truths which are *true at* every possible world. Thus, only truths which are *true in* every possible world are necessary truths. Those who don’t find this to be very plausible, I think, may resort to a weaker claim, that there are necessary truths which are true in every possible world. Also, given that there are modally valid arguments which involves these necessary truths, we would arrive at a similar result to the one Merricks wanted. Even though we cannot get the claim that for all x , if x is necessarily true, then x necessarily exists, but only that for some x , if x is necessarily true, then x necessarily exists (in the case of x is *true in* every world), I believe that this is a more reasonable response

and it does not invalidate his argument. Finally, since premises and the conclusion in the modally valid argument have their truth-conditions essentially, and some are necessarily true, they exist necessarily. On the contrary, sentences or propositional surrogates such as utterances do not exist necessarily. Thus, there are things which feature in modally valid arguments, and Merricks calls them propositions. Therefore, propositions exist.

1.4 Concluding Remarks

In this chapter, it is argued that propositions exist. Given the distinction between *an sit* and *quid sit* questions, we are able to model the debate on whether propositions exist in a better way. First of all, three answers to the *quid sit* question, namely that propositions are the meanings of sentences, propositions are the truth-bearers, and propositions are the attitudinal objects, are picked out as the Minimal Roles since most, if not all, theories of propositions agree that propositions do play these roles. Other desiderata concerning whether the Minimal Roles are sufficient to characterise what it is to be a proposition are discussed in the next chapter. Secondly, I have discussed three arguments against propositions, each of which purports to show that the Minimal Roles, significant as they may be, cannot be fulfilled by propositions. It is argued that none of the arguments work unconditionally. As for Davidson, we have to recognise that from the claim that propositions are meanings of sentences, we can never reach the conclusion that a theory of propositions is a theory of meaning in Davidson's sense. Since what concerns Davidson is how to construct a theory of meaning, the arguments against the existence of propositions fail. Furthermore, in Jubien's argument, it is assumed that abstract entities cannot have the ability to represent on their own. This assumption is not so plausible in light of the actualist theory of modality, which I find to be more intelligible. In addition, there is a puzzle concerning propositional attitudes, but as Schiffer points out, the same puzzle would occur even in contexts free of propositional attitudes. Therefore, it is not a problem particular to the claim that propositions are attitudinal objects. Last but not least, two arguments for the existence of propositions are provided. Comparing them to the argument against propositions, the assumptions used in the former arguments seem to be more compelling. This concludes Chapter 1 and the arguments for the existence of propositions.

Chapter 2

The Three Questions

The *an sit* question of propositions has now been more or less settled in the previous chapter. It is argued that propositions can be quantified over and are the premises and the conclusions in modally valid arguments. Yet, the nature of propositions was rarely discussed. Although I have claimed that almost every currently available theory of propositions fulfils the Minimal Roles, and the conclusion thereby suggests a minimal answer to the *quid sit* question, an elaboration of the Minimal Roles was not in place. Apart from saying that propositions are the meanings of sentences, the truth-bearers, and the attitudinal objects, a detailed elaboration of each of these roles is needed. However, it is not easy to give a direct characterisation of the Minimal Roles because they come with a set of puzzling questions. For instance, consider the following role: propositions are the meanings of sentences. First we may ask, what is the difference between a sentence and a mere list (or string) of words? An attempted answer, appropriate or not, is that there is a grammatical structure embedded in a sentence, but not in a list of words. We might be satisfied with the answer from the perspective of syntax. However, when the attention is shifted to propositions, asking for an explanation of the difference between a proposition and its constituents, it becomes a much harder question. As it is intuitively true that a proposition is a unity, but an aggregate of its constituents is not, the difficulty lies in how to spell out the unity condition. Any attempt should avoid identifying the unity condition as another propositional constituent. Otherwise, we would be back to the question what differentiates a proposition from the aggregate or the collection of its constituents. Moreover, if propositions are conceived as mind and language independent entities, as they often are, appealing to the grammatical structure would not provide any substantial assistance. Philosophers might turn to theories of propositions in which propositions are unstructured, an example of which is the possible-world account of propositions. According to Lewis (1986b), one of the proponents of the possible-world accounts, a proposition is a set of possible worlds, and if a proposition P

is possibly true, there is some world w such that w is member of P . One consequence of this view is that all necessary propositions are in fact the same proposition, which may be a somewhat puzzling result since the content of propositions seems too coarse-grained in this picture.¹ But I think Lewis is right to point out that sometimes we want the propositions to be coarse-grained for certain purposes. Thus, the demand for a fixed granularity of propositions, regardless of whether it is fine-grained, coarse-grained or somewhere in the middle, is in itself implausible. Perhaps this leads to Lewis's remark that it is dubious whether we can have a unique conception of propositions satisfying all the desiderata. In any case, it is not clear which way we should go by simply accepting that propositions are the meanings of sentences.

The brief exposition above suggests that although the Minimal Roles are the basic requirements of a theory of propositions, it seems that they are too 'minimal' and thus are unable to provide any fruitful answer to the *quid sit* question of propositions. As it happens, theories of propositions may have different concerns even about the same role. If that is the case, there is a worry that, to some extent, we cannot do justice in comparing these theories. It is because we have no neutral ground to adjudicate whether we should adopt one view rather than the other if their perspectives on the questions with which they are concerned are different in kind. For instance, theories of propositions developed by King (2007) and Soames (2010b) focus on the question, 'What makes propositions representational?' According to them, the fact that propositions represent the world (or things) in a certain way must be explained in terms of other entities. On the other hand, other theories may focus on how to individuate the content of necessary propositions or how to provide an account of propositional attitudes. One way to dismiss the worry is to characterise a set of questions which stem from the Minimal Roles and see how theories of propositions on the table may answer. If a theory is capable of addressing these various concerns and questions, it seems to be a preferred choice. Before developing such a theory, let me specify the common questions to be dealt with:

- (1) What are propositions?
- (2) What is the relation between propositions and their constituents, if any?
- (3) Are propositions contingent or necessary beings?
- (4) If propositions are representational, what makes them so?
- (5) How can the theory of propositions address various puzzles concerning beliefs?

¹I ignore Lewis's fine-grained construction of meanings for the moment as it will be discussed in Chapter 4.

(6) Are propositions fine-grained, coarse-grained or somewhere in the middle?

We can develop a theory of propositions, though perhaps not in every detail, from answers to these questions. It should be noted that the term ‘constituents’ appearing in the second question should be understood in a broad sense, where members of a set may also be considered as *constituents* of the set. In this sense, the account in which propositions are sets of possible worlds can be understood as saying that possible worlds are the constituents of propositions. But an even broader sense is perhaps needed. Consider the standard Russellian theory of propositions, according to which propositions are (ordered) sets of objects, properties, and relations. Suppose, for the sake of illustration, that the proposition that Socrates is wise is the ordered pair $\langle \text{Socrates, being wise} \rangle$. Under the convention (Kuratowski’s definition) of ordered pairs, it is in essence the set $\{\{\text{Socrates}\}, \{\text{Socrates, being wise}\}\}$. The property of being wise is certainly not a member of this set. I have no available resources to define the term ‘propositional constituent’ in a way which accommodates these different usages, so I will stay with an intuitive understanding of it for the rest of the work. Other questions also need some clarification but I shall pick up the task later. Now, we can categorise these questions into three groups: the Composition Question, the Representation Question, and the Attitude Question.

The Composition Question: What are propositions? What is the relation between propositions and their constituents, if any? Are propositions contingent or necessary beings?

The Representation Question: If propositions are representational, what makes them so?

The Attitude Question: How can the theory of propositions address various puzzles concerning beliefs? With respect to the granularity of propositions, should we have a fine-grained account, a coarse-grained account or somewhere in the middle?

Potential answers to these questions might overlap to a great extent in certain theories. That is, sometimes it is suggested that an answer to one of the questions is *ipso facto* an answer to another. For instance, Soames (2010b) explicitly claims that the unity question is essentially a question about how to explain the representational feature of propositions and thereby identifies part of the Composition Question with the Representation Question. In fact, Soames dismisses the unity question characterised above as a ‘metaphysical pseudo-problem ... which ... serves only to mask the real problem of explaining how propositions can be representational, and so have truth-conditions’.²

²Soames (2010b), p.106-7

Soames is not alone, as we can see that King (2007) argues for the same point based on similar considerations. However, I would like to keep them as distinct questions, and here is the reason why. An investigation into one of these questions may provide us with a full-blooded theory of propositions. For instance, Schiffer (2003) starts with the Attitude Question and argues that none of the theories of propositions on the table can properly answer it. In the end, a theory of pleonastic propositions is offered. It is an example of beginning with an inquiry into the Attitude Question but ending up with an answer to the Composition Question. To this kind of approach, I do not object. The approach which I am sceptical or less sure about is to identify (or reduce) one question with (or to) another question. There are, presumably, no pseudo-questions in philosophy, but only pseudo-questions with respect to a certain set of presuppositions. Since whether a set of presuppositions is intelligible is often contentious, I will not reduce any of the above questions to another question. In what follows, I shall discuss the nature of these questions in turn and the difficulties which they pose for theories of propositions. This is in essence an inquiry into how we ought to respond to the *quid sit* question of propositions. However, some might question why we should take a roundabout way to approach different theories of propositions. ‘Why don’t we directly examine these theories?’, they ask. One reason is that I found it quite uncomfortable to examine the theories of propositions when the interpretation and the significance of the questions in relation to propositions are unsettled. I believe that the following discussion of these questions may prove itself when we turn to theories of propositions later.

2.1 The Composition Question

The Composition Question, as characterised above, consists of three questions about the individuation condition, the identity condition and the modal features of propositions. The first and the second questions are about the constitution and the decomposition of propositions, if any, and the third is about whether propositions are necessary or contingent beings.

I have said that we should understand ‘propositional constituents’ in a broad sense. As it happens, propositions defined in terms of possible worlds—regardless of whether a possibilist or an actualist conception of possible worlds—have no ‘constituents’, at least not in the sense of the common notion of propositional constituents. To see this, consider the fact that when we speak about the constitution of Russellian or Fregean propositions, the unity question of propositions is usually inevitable, according to which we have to find a way to tell the difference between a proposition and a mere aggregate of its constituents. If we conceive a proposition as a set of possible worlds, on the other

hand, we would not encounter this question, since the mere aggregate, taken as a set, is the proposition itself. However, once we understand the term ‘propositional constituent’ in a broad sense as suggested above, possible worlds are also constituents of propositions. It may sound bizarre. It seems to be a truism that two propositions are identical if and only if they have the same constituents and the same structure. From this truism and the thesis that propositions are sets of possible worlds, we can also derive the conclusion that necessary propositions are in fact the same proposition, which is a characteristic thesis in the possible-world accounts of propositions. Whether it is a defensible thesis is another question, which will be discussed in Chapter 4. As for now, there seems to be no harm in having a broader understanding of what counts as a propositional constituent.

The decomposition question is implicitly mentioned in Frege, but an explicit characterisation is not found until Ramsey (1925), where Ramsey argues that the proposition that Othello loves Desdemona can be represented as *Othello, loving, Desdemona* (three constituents), but it is also compatible to represent it as *Othello loving, Desdemona* (two constituents). To say that it should be one way rather than the other, we have to answer the decomposition question and say which way of decomposition is the correct one. Alternatively, if we are sceptical of the uniqueness of decomposition but do not wish to go so far as to allow unrestricted decomposition, not only must we find a way to accommodate Ramsey’s challenge, but also some principles restricting ways of decomposition should be proposed. Finally, the question whether propositions are necessary beings or contingent beings is extensively discussed in Plantinga (1983). Plantinga argues that if one accepts *existentialism*—the thesis that existence is ontologically prior to essence—and that there are contingent beings, one is led to the conclusion that some propositions are contingent beings. However, from the fact that possibly, Socrates does not exist, and the necessitation of the truth schema—Necessarily, the proposition that P is true iff P , we can arrive at the conclusion that propositions are necessary beings. Later we shall examine arguments attempting to invalidate Plantinga’s argument, but we must be careful not to take the debate whether propositions are contingent beings or necessary beings as about whether propositions are contingently true or necessarily true. Propositions can be necessary beings in the sense that they are among the abstracta shared by every world, and yet some of them can still be true at some worlds and false at others. Thus, to say that propositions are necessary beings does not amount to the claim that propositions are necessarily true. Below I shall begin with an elaboration of the unity question in section 2.1.1. It is followed by a discussion of the decomposition question in section 2.1.2. Finally, I shall address some of the problems relating to whether propositions are contingent or necessary beings in section 2.1.3.

2.1.1 The Unity Question

The origin of the unity question of propositions, ‘What distinguishes a proposition, which is a unity, and an aggregate of propositional constituents?’ may be traced back to Plato, where Plato focuses on the question, ‘What distinguishes sentences from mere lists of words?’ In *Sophist* (262b-c), Plato writes,

And again, when “lion,” “stag,” “horse,” and all other names of those who perform these actions are uttered, such a succession of words does not yet make discourse; for in neither case do the words uttered indicate action or inaction or existence of anything that exists or does not exist, until the verbs are mingled with the nouns; then the words fit, and their first combination is a sentence, about the first and shortest form of discourse.

From the passage, we seem to have an indication of the problem rather than a proper answer, for it cannot stop one’s inquiry into why a sentence, rather than a mere list of words, is produced when ‘verbs are mingled with the nouns’. We may consider the following example: an expression consisting of ‘John’, ‘loves’, and ‘Mary’ is a sentence when put in a certain order, e.g. ‘John loves Mary’, but it is not a sentence when it is put as ‘loves John Mary’. If the criterion of some expression being a sentence is simply that verbs are mingled with the nouns, it is hard to tell why ‘loves John Mary’ is not a sentence or why the verb ‘loves’ is not mingled with the nouns. It follows that additional requirements are needed. Thanks to developments in linguistics, expressions in a language, whether simple or complex, can be categorised in a much more effective way than the rough subject-predicate distinction. For instance, we could appeal to any theory of syntax to show why ‘John loves Mary’ is a sentence while ‘loves John Mary’ is not a sentence. Of course, even if we agree with the linguistic or the syntactic solution, what is the case for the unity of sentences does not necessarily hold for propositions. Suppose that we answer the unity question of the sentence by saying that a sentence is a complex expression constituted by phrase markers and some terminal nodes; it does not follow, at least not automatically, that this should hold for propositions as well. Even if we can say that a sentence is merely a string of words which satisfies grammatical rules, we cannot simply say that a proposition is a collection of propositional constituents which satisfies certain rules because it is possible that the collection and the rules are present, but they have no relation to each other. The distinction between sentences and words may be an empirical matter, but the case is hardly so for propositions.

There are, however, philosophers who believe that the sentential approach will provide a viable solution to the unity question. For example, in Collins (2011), the unity question about propositions is regarded as a metaphysical question, while solutions to the

unity question about *linguistic meaning* should be subject to empirical data. In other words, the solution offered is only restricted to an empirical conception of linguistic meaning. To this I have no objection, but I would like to reinforce the distinction between linguistic meanings and propositions. In order to show that a syntactic solution to the unity question of linguistic meanings can be reproduced as an ontological solution to the unity question of propositions, there must be a certain sort of isomorphism. However, it seems to be the case that some sentences, although embedded with different grammatical structures, can express the same proposition, and it is also clear that two propositions can be attached to the same sentence, where there is no difference either in the structure or in the meanings of the linguistic units involved. Thus, there is room to doubt whether such an isomorphism is in place.

Moreover, an aspect of the unity question is a regress problem which stems from Bradley's regress. This, being a challenge to the view that relations are entities, has two parts: the Dependence Regress and the Constitution Regress. The Dependence Regress gets off the ground when we ask what the fact that a is F depends on. An intuitive answer would be that the fact that a is F is *metaphysically dependent* upon the fact that a and F stand in R , and this fact would in turn depend upon another fact that a, F, R stand in R' and so on. The Constitution Regress looms up as we ask what constitutes the fact that a is F . Obviously, the existence of a and the existence of F are not jointly sufficient for the fact Fa to obtain. Consider a situation where there are only two facts Fb and Ga , so there is no fact which is Fa . In that situation, a and F both exist, due to the existence of Ga and Fb , and yet Fa is still not a fact. We could add more constraints, such as a must instantiate F in order for the fact that a is F to exist. But it does not get us very far. Let us call the instantiation R , and the same reasoning can be applied. Although the Dependence Regress may seem less relevant to propositions, it is not difficult to turn the Constitution Regress into a regress for propositions.³

It is evident that Frege sees the unity question as one of the reasons for the indispensable distinction of object and concept, which is drawn based on whether the entity in question is complete or incomplete (saturated or unsaturated). In response to the charge that the distinction of concept and object leads to a paradoxical result that the concept horse is not a concept, Frege remarks at the end of the paper:

Somebody may think that this is an artificially created difficulty; that there is no need at all to take account of such an unmanageable thing as what I call a concept; that one might, like Kerry, regard an object's falling under a

³It is possible to take Bradley's regress to be something like an intrinsic feature of propositions which is not possessed by a mere collection of propositional constituents, and thus the unity question is *somehow* answered. For further discussion, see Gaskin (2008).

concept as a relation, in which the same thing could occur now as object, now as concept. The words ‘object’ and ‘concept’ would then serve only to indicate the different positions in the relation. This may be done, but anybody who thinks the difficulty is avoided this way is very much mistaken; it is only shifted. For not all the parts of a thought can be complete; at least one must be unsaturated or predicative, otherwise they would not hold together.⁴

There are issues around whether Frege and other Fregeans can successfully answer the concept horse paradox. Roughly, the paradox can be stated as follows: since it is cogent to say that the philosopher Socrates is a philosopher, it is natural to think that the concept horse is also a concept. But Frege cannot say that ‘the concept horse’ is a concept, given that one of Frege’s fundamental principles is that ‘never to lose sight of the distinction between concept and object’.⁵ For Frege, concepts are the reference of predicates (concept-words),⁶ while objects are the reference of names or singular terms. ‘The concept horse’ is regarded as one of the singular terms, and thus it ought to refer to an object. If it refers to an object, it cannot refer to a concept. Hence, we arrive at the paradox: the concept horse is not a concept. As for now, I shall focus on Frege’s solution to the unity question rather than problems stemming from his solution.

Recall that the unity question is a threat to theories of propositions in which propositions have constituents and structures. It is clear that propositional constituents cannot do the work of predication by themselves. Otherwise we could have a proposition simply by putting the propositional constituents together. The moral is that in a proposition, something must be predicative or bind the constituents together. Given the analogy between functions and concepts, it is natural for Frege to extend the treatment of functions to concepts, and then to incomplete propositional constituents (or unsaturated senses). Under one interpretation,⁷ Frege’s solution can thus be regarded as arguing that since not every part of a proposition can be complete, on pain of the unity question, some part must be incomplete, and the incomplete part of a proposition can be modelled by the incompleteness of a function, so we may understand it as some kind of propositional function. Thus, propositions are values of propositional functions. Yet, difficulties soon arise when we consider the interpretation of function and argument. Normally we would not say that the argument(s) and the function are part of the value. And yet it seems clear that Frege holds that propositional constituents are part of the proposition. This

⁴Beaney (1997), p.193

⁵Frege (1884), p.xxii

⁶For some Fregean scholars, and perhaps for Frege, ‘The reference of the concept word ϕ ’ would be a bad way of referring to concepts, for the definite article ‘the’ suggests an object as the reference of the expression. Instead, Frege suggests that we use ‘what the concept word ϕ stands for’ to refer to the concept in question. I avoid these exegetical matters for now.

⁷This interpretation is defended by Geach (1975), which will be discussed in section 6.3.1.

does not mean that the analysis of function-argument ought to be given up, but further qualification is definitely needed. An extensive discussion of this issue will be carried out in Chapter 6.

2.1.2 The Decomposition Question

So much for the unity question. The decomposition question can be best illustrated in theories of propositions where the identity conditions of propositional constituents are sharp and clear. In other words, the decomposition question can be fully appreciated in the light of theories of propositions which are reductive in character. Typical examples include the Russellian theories and the possible-world accounts of propositions. Take the former as an example: a simple monadic Russellian proposition contains an object, denoted by a singular term, and a property, denoted by a verb phrase. Although Russell himself sees ordinary proper names as descriptions in disguise, which is quite different from contemporary proponents of Russellian propositions such as Salmon (1986) or Fine (2007), we may leave the issue aside for the moment. Now let us assume that two propositions are identical if and only if the propositional constituents and the structure are the same. (What else could we say about the identity conditions for Russellian propositions?) But if the decomposition of a proposition is also possible, it seems that we are bringing the unity question back to the stage because the constituents decomposed from the proposition cannot be put back together to form a proposition simply by collecting them together. The problem is identified by Russell himself.

A proposition, in fact, is essentially a unity, and when analysis has destroyed the unity, no enumeration of constituents will restore the proposition.⁸

The proposition that Socrates is wise can be decomposed as having the object Socrates and the property of being wise as its constituents. Given that the object and the property do not form a proposition by themselves, some structural relation must be given. But the unity question strikes back once we start to enumerate the missing constituents. Even if we have some way or ways to avoid the unity question, another related problem is that it seems that there are multiple ways, rather than a unique way, to decompose a proposition. The Russellians can, for example, decompose the proposition that Frege is older than Russell as consisting of two objects and an older-than relation. Yet it seems also plausible to decompose it as consisting of the object Frege and the property being older than Russell. There are good reasons to say that they are the same proposition, but there are also competing reasons to say that they are not the same proposition, given

⁸Russell (1903), p.50

that the constituents are different. This is a difficult question, and it seems that the Russellian theories of propositions do not have a viable solution.

Another way of putting the same point can be found in Ramsey (1925), where Ramsey argues that there is an ‘incomprehensible trinity’ of propositions with respect to the proposition expressed by ‘ aRb ’, in which

one asserts that the relation R holds between a and b , the second asserts the possession by a of the complex property of ‘having R to b ’, while the third asserts that b has the complex property a has R to it. These must be three different propositions because they have three different sets of constituents, and yet they are not three propositions but one proposition, for they all say the same thing, namely a has R to b .⁹

The argument challenges the Russellian theories of propositions on the criterion of identity of propositions. It also appears that Ramsey has some other criterion in mind, namely that propositions are identical if and only if they say the same thing (or perhaps they have the same truth-conditions). Whether Ramsey’s criterion is defensible is another issue, however. Here I would like to point out that the argument does not directly apply to Fregean propositions, since the argument assumes that propositions with different constituents cannot be the same proposition. While this is true of Russellian propositions, the Fregeans need not concede it, especially for those who endorse the multiple analysis thesis (**MAT**), which says that a proposition can be analysed or decomposed in multiple ways. Suppose that the ways which we decompose a Fregean proposition would take us to its constituents. Following (**MAT**), the fact that two Fregean propositions are the same is compatible with them having different constituents. Yet there is a more general problem: in order to distinguish two Fregean propositions, the difference of their constituents does not suffice. Given that it is possible that two different sets of Fregean propositional constituents are decomposed from one Fregean proposition, identifying two Fregean propositions as different in terms of the difference of the constituents would not work.

Fregean propositions are typically conceived as structured entities which are abstract, and presumably they also satisfy the following identity condition: two propositions are identical if and only if they have the same propositional constituents and the same structure. But (**MAT**) is not compatible with the condition. Which one should be dropped? For the decomposition question, the Fregean accepts (**MAT**) for two reasons. Firstly, in order to preserve logical inference and reasoning, it must be the case that a proposition can be analysed in various ways. Secondly, it provides a natural explanation of why

⁹Ramsey (1925), p.405-6

‘Socrates is wise’ and ‘Wisdom is an attribute of Socrates’ express the same proposition. The price to pay is that we seem to have no proper criterion with respect to the identity conditions of Fregean propositions.

The unity question and the decomposition question are like two horns of a dilemma. The Fregean account of the saturated/unsaturated propositional constituents might solve the unity question in a handy way, but it will face the challenge that it is an arbitrary choice to assign some propositional constituents to be unsaturated and predicative. Although we may again dismiss the challenge by considering the construction of sentences in stages, the concept horse paradox seems inevitable. The Russellian theories of propositions, on the other hand, are quite neat in decomposing propositional constituents, but the unity question seems unanswerable. It should be noted that I do not claim that the above discussion covers everything about the unity question and the decomposition question, but at least it gives some reason for thinking about why there are genuine difficulties raised by these questions.

However, one might say that both the unity question and the decomposition question pose no such difficulty for the possible-world accounts of propositions as they do for Russellian or Fregean propositions. Are they better accounts? The answer seems affirmative until we come to the Attitude Question in section 2.3. For now, it can be said that the identity and the individuation conditions for the propositions in the possible-world accounts are as clear as the Russellian theories. Take the Lewisian propositions as an instance, a proposition is a set of worlds. Thus, two propositions differ if they have different members, which are the possible worlds. In addition, there is no problem of decomposition, since sets have a unique condition of individuating their members. The set $\{2, 3, 4\}$ differs from the set $\{2, 3\}$ because there is a member in the former set but not in the latter. The unity question is also a lightweight question for the possible-world account, if we understand the term ‘collection’ or ‘aggregate’ as some set-forming operation. The answer is that there is no difference between the proposition and the set of its constituents, which are the possible worlds in which it is true. A consequence, regarded as unacceptable by some philosophers, is that propositions which are necessarily true are identical given the identity criterion for sets. Despite the criticism, this might be the price to pay if we want to steer clear of the unity question and the decomposition question.

2.1.3 Necessary or Contingent Beings?

Now we turn to the final part of the Composition Question, whether propositions are necessary or contingent beings. We have seen earlier that this is different from asking whether propositions are necessarily true or contingently true. Of course, the correct answer to this question is that some are necessarily true and some are contingently

true. For instance, the proposition that two plus two is four is necessarily true and the proposition that Taiwan is a country is only contingently true. Yet, it is not clear whether propositions are necessary beings or not. An intuitive answer might be that some are and some aren't, but I shall argue that if propositions are the fundamental truth-bearers, then they should satisfy the necessitation of the truth-schema.

(NET): Necessarily, the proposition that P is true if and only if P .

That is, necessarily, if the proposition that P is true, then P , and *vice versa*. A prominent reason for the necessitation of truth-schema is that there is a notion of valid argument, different from the logical one, which requires **(NET)**. An example of it is an argument in which necessarily, if the premises are true then the conclusion is also true. Since its truth-preservation does not need to be held in virtue of its logical forms, there may be no logical relation between premises and conclusions. Williamson (2002) suggests that it complies with an understanding of valid arguments—necessarily, if the premises are true, then the conclusion is also true. The notion requires the necessitation of the truth schema. To see why, let us consider Williamson's example.

For example, when we argue 'John is taller than James, therefore James is not taller than John', our interest is primarily in the comparative heights of John and James, and in the truth of the propositions only to the extent to which it correlates with our primary interest. We want to know whether necessarily, if John is taller than James, then James is not taller than John.¹⁰

Williamson claims that our desire for knowledge can be fulfilled with the notion of the necessitation of the truth schema demonstrated as follows:

1. If John is taller than James, then James is not taller than John.
2. Necessarily, the proposition that P is true if and only if P .
3. Necessarily, the proposition that John is taller than James is true if and only if John is taller than James.
4. Necessarily, the proposition that James is not taller than John is true if and only if James is not taller than John.
5. Necessarily, if the proposition that John is taller than James is true, then the proposition that James is not taller than John is true.
6. Necessarily, if John is taller than James, then James is not taller than John.

¹⁰Williamson (2002), p.236

We can see that **(NET)** is required in performing the inference. Without it, it seems that there is no obvious way to understand a notion of a valid argument in which the truth of the premises necessitates the truth of the conclusion. Apart from Williamson's argument, I think that **(NET)** is a self-evident principle, and it is neutral with respect to what the nature of propositions is. Thus, it should be embraced unless other decisive reasons against it were raised.

However, if at least some propositions are contingent beings, the schema fails, and thus other accounts are needed. One way to show the failure is as follows: suppose that truth and falsity are properties of propositions. In order for something to have a property, it must exist. Moreover, it is usually said that possible worlds are maximal in the sense that for any world w , for any proposition P , either P or $\neg P$ is true with respect to w . Given that possible worlds are maximal, and propositions must exist in order to be true or false, it follows that propositions are necessary beings, i.e. they exist in every possible world. The above is not sufficient to be a decisive argument for the necessary existence of propositions. It may be argued that in the worlds in which Socrates does not exist, the proposition that Socrates does not exist is still true, but true in a different way, such that its truth does not require its existence. Arguments for the two conceptions of truth will be considered in Chapter 3, where theories of Russellian propositions are the foci, and in Chapter 4, where Stalnaker's response to the argument will be examined.

The focal point of the debate is on whether *singular* propositions are necessary beings. Roughly, singular propositions are propositions directly about objects, although it is not easy to provide a clear distinction between singular propositions and other propositions. Whilst it seems unquestionable to say that the proposition that Socrates is wise is a singular proposition and the proposition that wisdom is a virtue is not a singular proposition, we are more or less uncertain about whether the proposition that one of Socrates' properties is a virtue is singular or not. Obviously, it is not about Socrates but about a property of Socrates, and yet in some sense it involves Socrates as well. In any case, the attention will be on some paradigm instance of singular propositions, and the question to be investigated is, 'Are singular propositions necessary beings?' Provided that objects are commonly regarded as contingent beings, it seems natural to suggest that singular propositions are contingent beings as well.¹¹ However, there are at least two arguments, given by Plantinga (1983) and Williamson (2002) respectively, suggesting the answer should be 'yes'. For the time being, we shall only recapitulate Plantinga's argument.

Plantinga (1983) argues that propositions do not have contingent objects as con-

¹¹Some philosophers disagree that objects are contingent beings, e.g. Linsky and Zalta (1996) and Williamson (2002), and thus the suggestion does not hold for them.

stituents and that propositions are necessary existents. Note that even singular propositions exist necessarily. For most Russellians, including Fine (1985), King (2007) and Soames (2010b), singular propositions are contingent because propositions have objects as their constituents and objects are contingent beings. Although Stalnaker (2012) does not share the Russellian perspective on propositional constituents, Stalnaker also agrees that singular propositions are contingent beings. As we shall see later, the thesis that singular propositions are contingent beings is in conflict with Plantinga's argument. Thus, for those who accept that singular propositions are contingent beings, finding fault in Plantinga's argument becomes a serious issue.

Finally, we shall examine an extreme view in which all propositions are contingent, though there could be many ways in which their contingency is derived, e.g. from human mental acts or brain inscriptions. I shall call this view the Contingency thesis. In Plantinga (1993), there is a simple but powerful argument against the Contingency thesis, according to which, the existence of propositions depends on the existence of human beings or of some contingent objects. For the sake of illustration, I shall only consider the Contingency thesis where the existence of propositions depends on the existence of human beings, but the result can be easily generalised to other contingent objects as well. Now, it seems obvious that if human beings had not existed, then the proposition that there are no human beings would have been true. Thus, there is at least one proposition, that there are no human beings, which would be true if there were no human beings. It is clear that proponents of the Contingency thesis cannot accept this, since there would be no propositions if there were no human beings. But the price to pay is to reject that necessarily, there are no human beings if and only if it is true that there are no human beings—an instance of the necessitation of the truth-schema. For *reductio*, we may further suppose that propositions are mental acts. The proposition that there are mental acts is such that it could not have been false. Why? Because for a proposition to be true or false, it must exist. And its existence entails the existence of mental acts. Thus, the proposition that there are mental acts is such that it could not have been false. It follows that it is necessary that there are mental acts, and therefore the mind (or brain) necessarily exists. Proponents of the contingency thesis may agree that it is necessary that there are mental acts, but dispute whether it follows that the mind (or the brain) necessarily exists. In any case, there are far too many necessary propositions, e.g. the proposition that there are mental acts and mental act-related propositions, allowed in the account. This shows why the contingency thesis is not plausible.

In sum, the question whether propositions are necessary or contingent beings is in effect the question whether singular propositions are necessary or contingent. Plantinga (1983) offers an argument for the necessary existence of singular propositions. A reactive

response made by those who favour the view that singular propositions are contingent beings is that there are two conceptions of truth, *true in* and *true at*. If a proposition is *true in* a world, it exists at that world, but not so if it is *true at* a world. Yet, as I shall point out in Chapter 3 and 4, even if we grant that there are two conceptions of truth, we are not in a better position to respond to Plantinga’s argument. It seems that the only plausible way is to hold that propositions are necessary beings. If that is so, we will be able to rule out a lot of theories of propositions.

2.2 The Representation Question

With respect to the Representation Question, the main task is to explain how propositions come to have truth-conditions, if at all. The idea is that if propositions have truth-conditions, it ought to be the case that they represent things in a certain way, and an explanation of how they come to represent is required. As King puts it explicitly, ‘That propositions represent—that is, that they have truth-conditions—is something that needs to be explained’.¹² The explanandum is the propositional feature of being truth-bearers. Following King, Soames (2010b, 2014a) argues against other theories of propositions, according to which propositions are sets of possible worlds or sets of Russellian propositional constituents, by showing their inability to explain how propositions come to have truth-conditions. However, I shall argue that the question is not always intelligible. That is, the call for an explanation holds only under certain conditions, and the conditions are not held universally amongst theories of propositions.

2.2.1 How to Represent?

Recent approaches to the unity question, e.g. Soames (2010b) and King (2009), propose to solve it via an explanation of how propositions come to represent things as being thus-and-so. The thought is that what distinguishes propositions and mere aggregates of propositional constituents is that propositions are capable of being true or false, while aggregates do not have that feature. A good thing about this proposal is that once the Representation Question is settled, the unity question is thereby not a threat at all. If the proposal is successful, the distinction between the Composition Question and the Representation Question, which I endorse here, risks being pointless. Fortunately, things aren’t necessarily so. Consider the following parody argument.

Suppose, for illustration, that the face value analysis of propositional attitudes is correct, i.e. *S* believes that *P* iff *S* stands in a belief relation to

¹²King (2014), p.47

the proposition P . Thus, what distinguishes a proposition and a mere aggregate of propositional constituents is that propositions are the objects of propositional attitudes, and propositional constituents are not. Thus, what is to be explained is how propositions come to be the objects of propositional attitudes. Once an adequate explanation is provided, the unity question is thereby solved.

I suspect that anyone would find the above argument intelligible, even though it relies on a different distinction between propositions and propositional constituents. For the purpose of distinguishing propositions from sets of propositional constituents, the distinction is equally good, but it seems far from cogent to say that the face value theory helps solve the unity question. I believe that the same response also holds for those who propose to solve the unity question by solving the Representation Question.

The motivation of the Representation Question is that, provided that propositions have truth-values, it ought to be the case that they represent something in a certain way. In other words, if the proposed candidates for propositions do not have representational features, it seems less likely that they could be propositions. The origin of the question can be traced back to Sainsbury (1996), in which he comments on the distinction between propositions and sets of propositional constituents with the following remark:

A proposition manages to say something, to have truth-conditions; the set is some kind of model of these. A set cannot be identified with a truth-condition, since a condition, unlike a set, is something which can be satisfied (met, fulfilled) or not.¹³

It is clear that Sainsbury dismisses theories of propositions in which propositions are set-theoretic products, and the reason is quite obvious. For Sainsbury, propositions are (inherently) truth-bearers, which means that they have truth-conditions intrinsically and essentially. However, sets do not have truth-conditions. Therefore, sets of propositional constituents cannot be identified as propositions. The purported answer is that a mere aggregate of its constituents is not representational, in contrast with propositions. Therefore, if one can explain how propositions come to have representational features, perhaps the distinction between a proposition and a mere aggregate of its constituents is at hand.

Soames (2010b, 2014a) argues that no matter which conception of structure we have, there is still no informative distinction between a proposition and a mere aggregate of constituents.¹⁴ It is also pointed out, I think quite correctly, that the crucial distinction

¹³Sainsbury (1996), p.146

¹⁴Soames uses ‘a list’ rather than ‘an aggregate’, but I don’t think the difference matters here.

between them is that in a proposition, the semantic value of a monadic predicate (universal, property, or concept) is predicated on the semantic value of the subject, but in a mere aggregate of things no predication is available. Similar reasoning can be extended to n -place predicates. Therefore, the fact that there is a *predication* would explain why propositions are representational. However, the difficulty of finding such an explanation lies in the fact that there are too many equal candidates of propositions, since the proposition expressed by the sentence ‘Identity is different from difference’ can be demonstrated in the following ways:¹⁵

1. $\langle \text{difference}, \langle \text{identity}, \text{difference} \rangle \rangle$
2. $\langle \langle \text{identity}, \text{difference} \rangle, \text{difference} \rangle$
3. $\langle \text{difference}, \langle \text{difference}, \text{identity} \rangle \rangle$

Any one of the three seems equally as eligible as another to demonstrate what a Russellian proposition is. In other words, they are equally bad if one of them suffers any problem. Soames claims that they all suffer from the same problem: the proposition and the structure as demonstrated by the sets are not inherently representational. Why? Roughly, the argument can be put as follows:

1. Propositions are inherently truth-bearers.
2. Sets or other abstract objects are not inherently truth-bearers.
3. Therefore, a set of things (regardless of whether they are objects, properties, relations, or possible worlds) or any abstract object is not a proposition.

Soames further claims that the nature of the unity question is not finding a relation which holds propositional constituents together, but explaining the representational feature of propositions. We can see that Soames, echoing Jubien (2001), argues that the representational feature of propositions is something that must be explained, and thus the possibility that propositions are *primitively* representational is rejected.

Instead of explaining the intentionality of the cognitive activity of agents in terms of an imagined conceptually prior intentionality of the propositions they entertain, we must explain the intentionality of propositions in terms of the genuine conceptually prior intentionality of the cognitive activity of agents who entertain them.¹⁶

¹⁵Soames lists 8 variations but we need not consider all of them here.

¹⁶Soames (2014b), p.33

Thus, a proposition such as *o* is red ‘is simply the minimal event type in which an arbitrary agent predicates *being red* of *o*’.¹⁷ A notable feature of the theory of propositions developed by Soames is that propositions are human-dependent or agent-dependent. This is because propositions are the event types in which an agent predicates a property to an object, and if there were no agents, there would not be any propositions at all. Some might contest that although for Soames, propositions are event types, types might exist without tokens. If that is so, even if there were no agents, propositions as event types may still exist. Therefore, it would be mistaken to suggest that propositions are human-dependent. I believe that this is not a viable response. First, it is not clear whether Soames holds that types can exist without tokens. It seems that cognitive activities of agents exist prior to propositions. In other words, the cognitive event tokens might exist prior to the cognitive event types. Secondly, even if we grant that types can exist without tokens, this is incompatible with Soames’s criticisms of other theories of propositions. A detailed discussion of the theory will be carried out in Chapter 5, so I shall not go into detail here. In what follows, we shall evaluate only the argument.

It is not easy to appreciate the force of the argument. On one reading, it commits to the following claim: neither a formal structure with propositional constituents nor a set of things can *inherently* represent the predicative feature of propositions. On another reading, it goes against any theory in which propositions are understood as some abstract entities whose existence does not depend upon concrete and contingent entities. The first reading does not apply to Fregean propositions, at least not directly. The reason is that, *by stipulation*, Fregean propositions are representational and the senses of predicates are essentially predicative, given the distinction between saturatedness and unsaturatedness. One can further argue against the distinction if it is shown that the concept horse paradox, which stems from the distinction, cannot be solved, and perhaps that some other dreadful consequence would follow from the distinction. But as things stand, the former is not a challenge to Fregean propositions. The latter may be a threat to Fregean propositions, but it needs further elaboration. Let us start with the truth-bearer. What kind of entity is eligible to be a truth-bearer? By ‘truth-bearer’, we can mean something like the following: *x* is a truth-bearer iff *x* has a truth-condition. Then the reasoning may go as follows: since only cognitive events, and therefore cognitive event types, have truth-conditions, abstract entities which are not constituted by cognitive activities do not have truth-conditions. But this is too crude. Lewis (1986b) offers an account of propositions by identifying propositions as ‘properties which are instantiated only by entire possible worlds’.¹⁸ If a property is identified as the set of the instances which instantiate it, propositions can be

¹⁷Soames (2014a), p.96

¹⁸Lewis (1986b), p.53

characterised as a set of possible worlds. Moreover, a proposition P is true at w iff w is a member of P . The Lewisian account seems cogent and I wonder if there is any genuine reason to say that P is not a truth-bearer, given that we can say under what conditions P is true. Apart from Lewis, Stalnaker (2012) argues for an account of propositions in which propositions *are* the truth-conditions, and they do not represent the world in one way or another. The replies envisaged here by Lewis and Stalnaker can be seen as two outright rejections of the premises of the argument. In order for Soames's argument to go through, the following should either be proved or be taken as primitive: propositions are inherently representational and the feature is necessarily a product of cognitive actions. I don't see how that can be proved.

King (2007, 2009) develops a criticism, similar to Soames's, of the Russellian and the Fregean theories of propositions. The shared underlying thought is that the unity question is in fact the Representation Question in disguise: once we have answered how propositions represent things in a certain way, we thereby answer the unity question. Now I shall argue that this is not so. First of all, there is a difference in the domains to which these two questions can apply. The unity question is not an intelligible question for the possible-world accounts of propositions. However, they somehow still address the Representation Question to a certain extent. We may further consider the ersatzist programme in which there are some abstract entities representing ways that the world might be. There could be some questions considering their representational feature: how do the abstract entities do this? Why would these abstract entities rather than those abstract entities represent the world as being thus-and-so? Of course, these questions are not unanswerable. For instance, linguistic ersatzism may *represent* the world by using a Lagadonian language. Other consequent problems aside, I believe that this suffices to show that the unity question is different from the Representation Question in one aspect. Furthermore, if we grant that propositions are *inherently* representational and that they are primitively so, we might still face the unity question while getting rid of the Representation Question.¹⁹

One who does not like to talk about propositions in terms of possible worlds may contest: 'We must stick to the structured view of propositions (for the moment we may ignore Lewis's account of propositions which can also be extended to distinguish necessary propositions if one likes). Isn't it the case that for Russell and Frege, the unity question is the Representation Question in disguise?' I believe that this response is futile. Ostertag (2013) argues that it is the Representation Question which strikes us as a pseudo-question. Consider the property of being square. It is intrinsic to the property that it applies to

¹⁹See the theory of propositions developed in Merricks (2015). The imagined example is different from Merricks's theory of propositions in the sense that for Merricks, propositions are simple entities without constituents. But in order for the unity question to trigger, there must be propositional constituents.

all and only square things. To ask the Representation Question in a parallel way to properties, namely ‘How does the property of being square do this?’, is simply asking a pseudo-question, since the explanation is no more than ‘It is in the nature of properties to have the satisfaction conditions that they have’.²⁰ But then, why can neither the Russellian nor the Fregean reply to the Representation Question in the similar manner? Moreover, even if we suppose that the Representation Question is a pseudo-question, the unity question is still to be answered by the Russellian or the Fregean. It seems to me that that the unity question is the real question, while the Representation Question is more or less a pseudo-question in the sense that it does not apply to the conception of propositions according to which propositions are primitively and intrinsically representational.

There is yet another reason to be sceptical about the reduction of the unity question to the Representation Question. In section 2.1.1, it is argued that there is an intimate connection between the unity question and Bradley’s regress. In fact, one can see the failure to respond to the unity question as the failure to respond to the application of the Constitution Regress to propositions. Suppose one has a solution to the unity question. It would be sensible to think that the solution can be extended to the Constitution Regress. Perhaps it will not automatically be a solution, but it seems that such an extension is imaginable. Given that there is a regress which stems from the problem of the unity of propositions, how can we avoid it by providing an explanation of why propositions have truth-values? I simply don’t see how things could be so easy. Despite the fact that it may look as if I am dismissing the Representation Question, I think that this is an interesting question for theories of propositions, especially for those who are able to provide an explanation of it. Yet, what I am arguing is that the question has little connection with the unity question, in the sense that there is no support for the claim that a solution to the Representation Question can be transformed into a solution to the unity question.

Finally, readers may find that the term ‘representation’ seems to have two senses, the technical and the mental.²¹ It seems natural to say that a proposition represents things as being thus-and-so and is true if things are thus-and-so. For example, the proposition that Socrates is wise represents Socrates as possessing the property of being wise, and it is true if Socrates possess the property of being wise. However, there is another sense of representation such that we can represent things by colours, for instance, red for Labour party and blue for the Conservative party. When Soames argues that propositions are representational because cognitive activities are representational, and not the other way around, it is the mental sense of representation to which Soames is appealing. In some of

²⁰Ostertag (2013), p.522

²¹Here I am following the distinction proposed by Kment (2012), although my characterisation of the technical sense is different from Kment’s. See Kment (2012), p.575, footnote 6.

the arguments against Soames’s view, the technical sense of representation is implicitly assumed, and it is this sense of representation which underlies the thesis that Fregean and Russellian propositions represent things as being thus-and-so. As we shall see later, it is the technical sense of representation which philosophers appeal to if they accept that propositions, as non-linguistic and non-mental entities, are truth-bearers because they are representational.

2.3 The Attitude Question

Finally, we turn to the Attitude Question. It is recognised that almost every theory of propositions encounters serious difficulties, e.g. Frege’s puzzle, Kripke’s puzzle, and cases about the attitude *de se*, when taking the objects of propositional attitudes as propositions. The problems have led some philosophers to reject that propositions are the attitudinal objects. For instance, Russell at one stage holds that for *S* to believe that *P* is for *S* to stand in the belief relation (*n*-adic) to the propositional constituents of *P*. This is usually called the multiple relation theory of judgements.

The theory of judgment which I am advocating is, that judgment is not a dual relation of the mind to a single objective, but a multiple relation of the mind to the various other terms with which the judgment is concerned. Thus if I judge that A loves B, that is not a relation of me to “A’s love for B”, but a relation between me and A and love and B.²²

Some philosophers see this as the correct picture for belief attributions, as opposed to the standard, or the face value, analysis of belief reports, in which ‘believe’ is treated as a two-place relation: *S* believes that *P* is true if and only if *S* stands in the belief-relation to the proposition that *P*. I shall not step into the muddy debate on which is the correct picture. However, there is some reason not to give up the standard analysis. First and foremost, philosophers who develop a theory of propositions from the multiple relation theory of belief ascriptions usually seek to cope with linguistic data.²³ On the contrary, I do not think that theories of propositions should start with linguistic data and grammatical structures. It should be noted that this is different from the claim that linguistic data and grammatical structures are not important at all. Quite the opposite, they are important if we want to develop a theory of meaning for *natural languages* from the aspect of linguistics. However, as long as the current inquiry is an ontological one, to develop the theory of propositions in terms of linguistic data and grammatical structures

²²Russell (1910a), p.180

²³See Jubien (2001), Moltmann (2013), and Soames (2010b).

is quite inessential and perhaps misleading. Moreover, the puzzles about beliefs cannot be resolved easily even if the attitudinal objects are entities other than propositions. Since it is commonly accepted that propositions are the attitudinal objects, the thesis won't be abandoned unless there are greater difficulties which cannot be overcome. Before we proceed, one thing should be kept in mind: I have no intention of developing a full-blooded solution to various puzzles about propositional attitudes. To aim at such a thing would be unrealistic. A more realistic inquiry is to see whether a given theory of propositions has enough resources to deal with the Attitude Question. What does it mean for a theory of propositions to have enough resources? It can be illustrated by the following example: a common (mistaken) objection to the thesis that propositions are sets of possible worlds is that it is insufficiently fine-grained to distinguish necessary propositions. However, as we shall see in Chapter 4, Lewis (1986b) does have a way to distinguish necessarily co-extensive properties, e.g. being trilateral and being triangular, and that way can be extended to distinguish necessary propositions as well. Although, if we follow Lewis, it need not be the case that every necessary proposition is distinguished from another, Lewis's account of propositions has enough resources to accommodate the objection. In effect, this would be the practice when we examine whether a given theory of propositions has enough resources to deal with the Attitude Question.

Another related question is about the granularity of the content: how fine-grained should propositions be? On the one hand, we want to, or at least are inclined to, distinguish the propositions in a fine-grained way to accommodate Frege's puzzle and other puzzling examples. For instance, one of the differences between the propositions expressed by ' $a = a$ ' and ' $a = b$ ' is that the former is *a priori* and the latter is *a posteriori*, and thus they are semantically different. But if propositions are coarse-grained, the propositions expressed would not be different. On the other hand, it is not appealing to have a theory where it is not possible for two distinct sentences, such that either there is a difference in the structure or in the constituents, to express the same proposition. A too fine-grained characterisation of propositions might open the door for radical scepticism about communication—not an appealing consequence either.

2.3.1 Puzzles about Belief

Of the many puzzles with respect to belief, I shall discuss Kripke's puzzle in the present section because it seems to be a general problem for any theory which takes propositions as attitudinal objects.²⁴ Kripke argues that the usual Fregean objection to the Russellian

²⁴In contrast, Frege's puzzle does not threaten the Fregean theory of propositions. Moreover, it is not clear that those who agree that propositions are attitudinal objects intend to cover *de se* attitudes as well. However, in Chapter 6, I shall argue that the Fregean theory defended is able to account for *de se*

theory of propositions does not work. What is the Fregean objection? One way to present it is as follows: if defenders of the Russellian theories of propositions are correct about the semantic role of a name, presumably any co-referring terms can be substituted *salva veritate* in sentences where they occur. Let us call this the Substitution thesis. However, with respect to belief reports, the Substitution thesis is likely to fail. Soon we will find out that even if someone, say Peter, believes that Cicero is a Roman orator, provided that Cicero is Tully, it does not follow that Peter believes that Tully is a Roman orator. In fact, Peter can even disbelieve that Tully is a Roman orator without making any logical error or irrational mistake. And yet, according to the Russellian, if ‘Cicero’ and ‘Tully’ co-refer, they have the same meaning. Thus, the failure of the Substitution thesis shows that the Russellian is mistaken with respect to the theory of names, since the Substitution thesis is implied by the Russellian account.

Kripke, in defence of the thesis that the meaning of a proper name is nothing but its reference, admits that the Substitution thesis encounters some counter-examples in belief reports but argues that the problem goes beyond the thesis. Basically, Kripke aims to show that even without the Substitution thesis, there are still persisting puzzles with respect to belief reports. Notice that I have kept using ‘belief reports’ instead of ‘beliefs’. The reason is that the puzzle is not about whether the subject has certain beliefs. Rather, the puzzle concerns how we ought to ascribe the beliefs in question to the subject. The puzzle can be presented by using a number of principles, e.g. Disquotation, Translation.²⁵ Here I shall only consider the puzzle generated by Disquotation alone, which involves the famous Paderewski case.

Disquotation: If a normal English speaker, on reflection, sincerely assents to ‘*P*’, then he believes that *P*.²⁶

The principle, however, requires further clarifications. First of all, *P* lacks ‘indexical or pronominal devices or ambiguities’. Secondly, by ‘normal’, it means that the speaker uses the expressions as commonly used by English speakers. The qualification of ‘reflection’ is meant to exclude cases of making assent by careless speakers. Finally, ‘sincerely’ is to keep the use of *P* free from lies, ironies, etc.

Unbeknownst to Peter, Paderewski is both a famous pianist and a politician. In fact, Paderewski is the Prime Minister of Poland. Peter first learns that Paderewski is a pianist, and as his fellow beings, Peter does not think any politician would possess professional piano skills. On a different occasion, Peter learns that Paderewski is a

attitudes.

²⁵In Kripke (2011), p.139, the principle of Translation is formulated as: ‘If a sentence of one language expresses a truth in that language, then any translation of it into any other language also expresses a truth (in that other language)’.

²⁶Kripke (2011), p.137

politician, and thinks that there are two people who happen to have the same name ‘Paderewski’. However, by Disquotatation, we have the following belief ascriptions:

1. Peter believes that Paderewski is musical.
2. Peter believes that Paderewski is not musical.

The second belief report can be generated from the fact that Peter believes Paderewski is a politician and that, to the best of Peter’s knowledge, no politician is capable of playing piano like a professional pianist. The puzzle is that we do not know whether we should ascribe such beliefs to Peter, since it results in inconsistency. There are, allegedly, four options to choose from.

- (18) We ascribe the first belief to Peter.
- (19) We ascribe the second belief to Peter.
- (20) Both beliefs are ascribed to Peter.
- (21) Neither of the belief is ascribed to Peter.

We may immediately find that the third and the fourth option are not cogent at all. The option (20) says that Peter has contradictory beliefs and (21) implies that Peter in fact has neither belief. But let us look into details. Of course, some may contend that while (21) looks implausible, (20) seems to be an available option, since an agent may sometimes have contradictory beliefs unbeknownst to him. The objection soon falls short once we take Disquotatation seriously. The qualification of ‘reflection’ is meant to exclude the possibility of (20). Although some philosophers, e.g. Priest (1984), may accept (20) despite the qualification, and thus the result would undermine the present response, perhaps we may temporarily banish Priest for not being ‘normal’. Now let us consider (18) and (19). To say that the we should choose (18) rather than (19), or the reverse, seems arbitrary. Suppose (18) is the case, are we forced to say that Peter in fact does not believe Paderewski is a politician and thus is not a pianist? I believe that there is equal rationale to say that we can ascribe the first belief as well as the second belief to Peter. Perhaps we can say that Peter should not preclude the possibility that one can be a politician and a pianist at the same time. However, it seems that the requirement is too high, such that belief ascriptions would become almost impossible. The Paderewski case is no different from an ordinary practice of believing. Suppose that ‘Tully’ is a very common name in the Roman Empire. It is plausible that no matter how rational Peter can be, he may still think that if x is a Roman orator and x is not a soldier by studying almost all the historical records on Roman orators and Roman soldiers. Peter’s thought is definitely plausible, or at least reliable. Later, Peter comes to believe that Tully is a

Roman orator, and that Tully is a soldier, by thinking these are two distinct people with the same scripture as their names. If we do not want to fall into scepticism by saying that we cannot ascribe any beliefs which cannot be false to the agent, it seems that the puzzle is unavoidable. We lack convincing reasons to praise one choice over the others. Again, the puzzle is that we have no clue which option is the correct one.

It is suggested that if the puzzle is genuine, problems about belief reports are not restricted to the Substitution thesis and thus it is not the Russellian to be blamed. Indeed, as the Paderewski case shows, we can generate the puzzle without involving any account of names. The puzzle relies on the Disquotatation principle, the two beliefs of Peter, and the thought that no politician would possess piano skills so professional as to be regarded as a pianist. Can the Fregean solve the puzzle? I am pessimistic on the plausibility of a Fregean reply. A possible Fregean reply, I think, would be that the term ‘Paderewski’ is associated with different senses so that the two beliefs are not inconsistent. In other words, we take the option (20) and dispels the inconsistency. However, a deeper analysis will reveal that it leads to a dead end. Recall that for Frege, sentences embedded in indirect contexts (e.g. beliefs) do not have their usual reference, truth-value. On the contrary, the embedded sentences will have their customary sense as their reference in indirect or intentional contexts. Therefore, we must say that the senses, or Fregean propositions, expressed by ‘Paderewski is musical’ and ‘Paderewski is not musical’ are not in conflict in order to avoid the inconsistency for Peter’s two beliefs. However, for those who are aware that Paderewski is a politician and a pianist, it is hard to see how they can report the two beliefs without attributing inconsistent beliefs to the agent. Needless to say, I have not exhausted all the Fregean responses, and yet it reveals that there is no simple diagnosis from the Fregean. Unlike the case in which the Substitution thesis fails, where the Fregean seems to have a better and simpler answer in contrast to the Russellian. The moral of the puzzle is that with respect to belief reports, there is a genuine puzzle which can be generated independently from the Substitution thesis. From it, Kripke draws the conclusion that the Substitution thesis shall not be taken as responsible for problems we have in belief reports.

2.3.2 The Granularity Question

Consider the proposition that Hesperus is Phosphorus. Is it the same as the proposition that Hesperus is Hesperus? Depending on how we understand the term ‘same’, there are equivocal answers. If we understand it as two propositions are the same iff their constituents are the same, and if propositional constituents are objects, properties and relations, it follows that they are the same proposition. However, if propositional attitude reports, such as *S* believes that *P*, express a relation between the subject and the

proposition, it follows that when someone believes that Hesperus is Hesperus, he would also believe that Hesperus is Phosphorus. And yet the verdict is itself too implausible. There are at least two ways of avoiding the consequence. First, one might suggest a pragmatic answer. That is, following Salmon (1986)'s distinction of semantically encoded information and pragmatically imparted information, we can say that even though the propositions are the same, they have different pragmatically imparted information, and this is what distinguishes the belief that Hesperus is Hesperus from the belief that Hesperus is Phosphorus. In general, the pragmatically imparted information is something which is neither semantically nor logically implied by the proposition. Secondly, we may reject the two-place relational analysis of propositional attitudes. One possibility is to endorse the multiple relational theory of propositional attitudes. Although the above case concerns the problems that Russellian theories of propositions may face, it can also be extended to the possible-world accounts of propositions.

It should be noted that even though the granularity question is often associated with propositional attitudes, it is sometimes a question on its own, I think. One of the questions which may puzzle us is whether the proposition that $9 > 3$ and the proposition that $3 < 9$ are the same proposition. At face-value, they have different constituents, as the former includes the relation $>$, and the latter includes the relation $<$. Thus, some other explanation is needed to say that they are the same proposition. Yet, someone might argue that they are just different propositions, and thus no explanation is needed. A more general problem is that we do not have a fixed opinion about how fine-grained propositions should be. For instance, on whether we should say that the properties of triangularity and of trilaterality are different properties, Lewis (1986b) says,

Sometimes we do, sometimes we don't. I don't see it as a matter for dispute. ...It's not as if we have fixed once and for all, in some perfectly definite and unequivocal way, on the things we call 'the properties' ...Rather, we have the word 'property', introduced by way of a varied repertory of ordinary and philosophical uses. ...To deserve the name of 'property' is to be suited to play the right theoretical role; or better, to be one of a class of entities which together are suited to play the right role collectively. But it is wrong to speak of *the* role associated with the word 'property', as if it were fully and uncontroversially settled.²⁷

Lewis suggests that the same holds for propositions, with which I agree. There are cases where a coarse-grained notion of propositional content is needed and there are also cases which call for a fine-grained notion of propositional content. To insist that

²⁷Lewis (1986b), p.55

one must stick to one rather than the other seems baffling. That is, although we have seen the cases in favour of a fine-grained notion of propositional content, our intuitions differ beyond these cases. There is a possible solution to accommodate the issues. It is that we should allow the theory of propositions to have the possibility of expressing fine-grained propositions as well as coarse-grained propositions. The possible solution is not new, since Lewis (1986b) has already offered an account in which the resources are sufficient to characterise structured and unstructured propositions. Also, in Chapter 6, I shall argue that the Fregean theory of propositions is capable of accommodating the granularity problem by allowing propositions to be abundant. If someone suggests that $9 > 3$ and $3 < 9$ are different propositions, we can associate two different propositions to accommodate the suggestion. For those who hold that these two propositions are in fact the same, we can also explain why it is the case. The granularity question, as conceived, is not a question with a definite answer, in the sense that different granularity may be required on different occasions. A theory which can accommodate these demands seems to be a better theory.

Chapter 3

Russellian Theories of Propositions

Russellian propositions are structured entities consisting of objects, properties and relations. The word ‘structured’, however, is a term of art. It is obvious that propositions as sets of possible worlds also have a certain ‘structure’, namely the set-theoretic structure, but we ought to carefully distinguish the usage which is usually applied to Russellian or Fregean propositions from the usage more broadly understood. Although the Russellian propositional structure is usually represented by sets—so it can be regarded as having a set-theoretic structure—the representation is used to reflect the linguistic or logical structure, and thus it is always *ordered*. Moreover, propositional constituents in Russellian propositions, i.e. objects, properties and relations, are what distinguish Russellian theories of propositions from other theories. The paradigm of this view is, not surprisingly, defended by Russell at one time, although he uses ‘term’ instead of ‘propositional constituents’ while discussing the constituents of propositions.

Whatever may be an object of thought, or may occur in any true or false proposition, or can be counted *as one*, I call a *term*. ...[E]very term has being, i.e. *is* in some sense. A man, a moment, a number, a class, a relation, a chimaera, or anything else that can be mentioned is sure to be a term; and to deny that such and such a thing is a term must always be false.¹

It is interesting that in this passage, Russell seems to commit to the view that anything that can be mentioned or thought about is a propositional constituent. Surely ‘the chimaera’ can be mentioned in a sentence, as in ‘the chimaera has a lion’s head’, and yet isn’t it the case that the chimaera is not among the things that *exist*? And if the chimaera can be a propositional constituent, what exactly is it? A sensible interpretation of the above could be Meinongian in character. And yet this will be in conflict with the other theses Russell held later.² Supposedly, the proposition that the golden crown

¹Russell (1903), p.43 (§47)

²See Russell (1905).

of Queen Elizabeth is gold and the proposition that the golden mountain is gold have distinct truth-values, if we apply the analysis of ‘the *F*’ put forth in Russell (1905). The latter proposition is similar to the proposition that the present King of France is bald. Given that there is no King of France, the Russellian analysis shows why the proposition is false. The same also applies to the proposition about the chimaera. What this shows is that there is a difference in the treatment of propositional constituents. Interesting as it may be, I shall leave the exegesis of Russell’s philosophy untouched, and the focus in what follows will be on the Russellian theories of propositions, according to which propositions are structured entities consisting of objects, properties and/or relations.

The following two theses are common to all Russellian theories of propositions:

(RP): A (singular) proposition is a structured complex entity consisting of objects and properties.

(DR): The semantic value or content of a name is just its referent.

The Russellian theory of propositions, found in Salmon (1986) and Fine (2007) amongst others, is a hybrid of Russell’s theory of propositions, where **(RP)** holds, and Kripke’s theory of reference, from which we get **(DR)**. It is somewhat ironic to learn that both theses are endorsed neither by Russell nor by Kripke. For Russell, ordinary proper names are simply descriptions in disguise. For Kripke, there is some evidence showing his hesitation about applying the thesis to propositions. In the preface of *Naming and Necessity*, Kripke writes:

... [T]he mode of fixing the reference is relevant to our epistemic attitude toward the sentences expressed. How this relates to the question what ‘propositions’ are expressed by these sentences, whether these ‘propositions’ are objects of knowledge and belief, and in general, how to treat names in epistemic contexts, are vexing questions. I have no ‘official doctrine’ concerning them, and in fact I am unsure that the apparatus of ‘propositions’ does not break down in this area.³

In any case, the Russellian theories of propositions are the main concern in this chapter. More specifically, I shall concentrate on the theories developed by Salmon (1986) in section 3.1, and by Fine (2007) in section 3.2. I argue that if we think that Frege’s puzzle is a genuine puzzle, then Fine’s version of the Russellian theory of propositions is better than Salmon’s theory of propositions, in the sense that the semantic difference between ‘*a=a*’ and ‘*a=b*’ can be explained within Fine’s theory in a natural way. However, in

³Kripke (1981), p.20-21

section 3.3, I argue that although they can address the Representation Question and part of the Composition Question, i.e. the decomposition question, they cannot answer the unity question and have no resources to reply to the challenges raised by the Attitude Question. Finally, I shall examine their responses to Plantinga (1983)'s argument in section 3.4.

3.1 Salmon and Russellian Propositions

3.1.1 Facing Frege's Puzzle

Salmon (1986, 1989) defends the theses that the meaning of a name is nothing but its referent and that the meaning of a sentence containing a name is the singular proposition which it expresses, where a singular proposition is a proposition *directly about* an object. Moreover, a proposition is an n -tuple consisting of objects, properties and/or relations. It is clear that Salmon's theory satisfies the above characterisation of Russellian theories of propositions. We shall elaborate Salmon's theory in terms of its reply to Frege's puzzle. The reason is that Frege's puzzle is purported to show that the meaning of a name cannot simply be its referent and thus one of the two Russellian commitments would be undermined. Frege's puzzle concerning 'Cicero = Cicero' and 'Tully = Cicero' can be reformulated as follows.

- (F1) Cognitive Difference: The two identity sentences are cognitively different.
- (F2) Cognitive Link: If the sentences are cognitively different, then they are semantically different.
- (F3) Compositionality: If the sentences are semantically different, then the names 'Cicero' and 'Tully' are semantically different.
- (F4) Referential Link: If the names 'Cicero' and 'Tully' are semantically different, they are referentially different.
- (F5) Referential Identity: The names 'Cicero' and 'Tully' are not referentially different.⁴

It is clear that the above statements are jointly inconsistent, and thus one of the claims must be rejected. It is worth noting that Frege's puzzle is not restricted to identity statements. The same point can be made by substituting '= Cicero' with other predicates, e.g. 'is a Roman orator'.

⁴Fine (2007), p.34. I am using Fine's reconstruction of Frege's puzzle because of its elegance and its relevance to the discussion below.

The Fregean solution to the puzzle is to reject the Referential Link, by arguing that the thing which serves as the meaning of a name or a sentence is not its reference. Thus, two semantically different expressions can have the same reference. A natural consequence of the Fregean solution is that it is relatively easy to explain why someone who believes that Cicero is Cicero may not believe that Cicero is Tully. However, it appears that the puzzle is extremely difficult for the Russellian. An intuitive response is to reject the Cognitive Difference, but this has some unintelligible consequences. Suppose that Peter knows everything about Cicero except that his real name is Tully. Now, let us consider the following sentences:

(22) Cicero wrote *Academica*.

(23) Tully wrote *Academica*.

According to Salmon, both sentences express the same proposition because they contain the same predicate and there is nothing to the semantic value of a name except its referent. But there is a strong intuition that one can believe one while failing to believe the other. What underlies the intuition, the Fregean says, is the difference in the propositions expressed. As for the Russellian, an argument against the intuition is thus called for.

The above difficulty can be summarised as follows:

(Y1) The above two sentences about Cicero express the same proposition.

(Y2) If belief is a relation between the believer and the proposition, someone who believes (22) will also believe (23) and *vice versa*.

(Y3) It is not always the case that someone who believes one will also believe the other.

(Y4) Therefore, the two sentences about Cicero do not express the same proposition.

The premise (Y3) is less contested and intuitively true.⁵ This leaves us with (Y1) and (Y2). It is widely recognised that the Russellian would commit to (Y1), although they may disagree over which proposition is expressed in other cases. For instance, in Fine (2007), the proposition expressed by ‘Cicero = Cicero’ is different from the one expressed by ‘Cicero = Tully’. But Salmon and Fine *do* agree on the above case. Roughly, if the names appearing in the two sentences are co-referential, the predicates express the same property and there is no structural difference of any type, then the two sentences express the same proposition. Thus, (Y1) is indisputable for the Russellian. However, with

⁵Although one could still hold that given the premises (Y1) and (Y2), the premise (Y3) follows immediately and thus someone who believes (22) will also believe (23) but remain ignorant of this very belief. The discussion around the reply will turn to the nature of beliefs, which I have no intention to pursue here. For the moment, I shall accept that the premise (Y3) states a fact without further qualifications.

respect to (Y2), we can see a number of proposed solutions from the Russellians. The problem, according to Salmon, is that belief is a two-place relation to be analysed as the existential quantification of a three-place relation *BEL*, which holds between believers, propositions and ‘proposition guises, or modes of acquaintance or familiarity with propositions, or ways in which a believer may take a given proposition’.⁶ Therefore, Salmon’s proposed solution is to reject the Cognitive Link.

3.1.2 Modified Naïve Theory of Propositions

Salmon (1986) calls his own theory the modified naïve theory of propositions. First of all, a proposition is understood to be the piece of information, or the information content, encoded by a given sentence. The term ‘information’ is used as a neutral candidate in place of ‘semantic content’ or ‘meaning’. Secondly, the semantic value of a singular term, say ‘Cicero’ or ‘the author of *Academica*’, is what the expression contributes to the propositions expressed by the sentences containing these expressions. The case is similar for predicates. According to the Russellians, there are two constituents of the proposition that Socrates is wise, namely the object Socrates and the property of being wise. What the proposition that Socrates is wise and the proposition that Socrates is snub-nosed have in common is the object Socrates. And what the proposition that Socrates is wise and the proposition that Plato is wise have in common is the property of being wise. The formulation of compositionality is taken as follows: ‘If pieces of information are complex abstract entities, and two pieces of information p and q having the same structure and mode of composition are numerically distinct, then there must be some component of one that is not a component of the other; otherwise p and q would be one and the very same piece of information’.⁷

So far I have only characterised some underlying thoughts of the modified naïve theory of propositions. It remains to be shown how the theory can answer Frege’s puzzle, especially on the *difference* between $a = a$ and $a = b$. Before we go into the argument, let me roughly characterise Salmon’s version of the Russellian theory of propositions:

1. The meaning of a name is simply its referent.
2. The meaning of a sentence is the proposition it expresses.
3. Propositions are constituted by, or composed of, objects, properties and relations.
4. The belief relation, e.g. John believes that P , may be analysed as $\exists x$ (John grasps P by means of x and $BEL(\text{John}, P, x)$).

⁶Salmon (1989), p.196

⁷Salmon (1986), p.55

The most contentious claim is perhaps the one on the analysis of belief relations. Instead of analysing S believes that P as a two-place relation between the believer and what is believed, Salmon introduces another type of entity in order to explain the intuitive feeling we have from Frege's puzzle. Yet, it is interesting to see to what extent Salmon departs from Frege, since the primary aim in Salmon (1986) is to provide an alternative theory of propositions to the Fregean one. Intuitively, the Fregean theory of propositions provides a better explanation of belief reports. Given that the Fregean propositions expressed by the sentences 'Tully is an orator' and 'Cicero is an orator' are different, it explains why one can believe one, while failing to believe the other. Since Salmon agrees that there is a difference when we turn to the objects of beliefs, the proposed fix is that the belief relation is not simply a two-place relation between the believer and the believed proposition. Rather, some extra entity is required. One might question what the entity is, but this is a question which Salmon need not answer. The gist of the proposal is that there is such a ternary relation 'whose existential generalization coincides with the binary relation of belief'.⁸

3.1.3 Towards Solving Frege's Puzzle

With the modified naïve theory of propositions at hand, we may now see how Salmon proposes to solve Frege's puzzle. It should first be noted that the theory developed by Salmon has a remarkable consequence: Reporting someone as believing the singular proposition expressed by a sentence in which 'Hesperus' is a constituent would entitle us to report the believer as believing the proposition expressed by a sentence in which the only difference from the Hesperus-sentence is the occurrence of 'Phosphorus'. In other words, 'Hesperus is the evening star' expresses the same proposition as 'Phosphorus is the evening star'.

The [*BEL*] analysis makes room for the modified naive theory's claim that whoever believes that Hesperus is Hesperus also believes that Hesperus is Phosphorus, for whoever agrees inwardly with the singular proposition about the planet Venus that it is it, taking the proposition as an affirmation of self-identity about the first heavenly body sometimes visible at dusk in such-and-such location, stands in *BEL* to the proposition that Hesperus is Phosphorus and some x or other, and hence believes this singular proposition.⁹

It is clear that Salmon opts for a response which rejects that cognitive difference implies semantic difference. Obviously, Frege's puzzle does show some kind of difference between

⁸Salmon (1986), p.111

⁹Salmon (1986), p.114

the two identity statements, otherwise we would not be puzzled. Since Salmon insists that believing that Hesperus is a planet and that Phosphorus is a planet is in fact believing the same proposition, how would he tell the difference between them? Let us consider the following scenario.

Fido is an astronomer who specialises in observing of the planets. Not surprisingly, Fido believes that Hesperus is the evening star and that Hesperus is Hesperus. Fido also believes that Phosphorus is the morning star. However, Fido is unaware of the fact ‘Hesperus’ and ‘Phosphorus’ are names for the same referent, and he withholds belief from, or is disposed to disbelieve, the proposition that Phosphorus is the evening star. Also, while it is true that Fido believes that Phosphorus is the morning star, he disbelieves that Hesperus is.

Salmon might reply that Fido believes *of* Phosphorus that it is the morning star, and given that ‘Phosphorus’ and ‘Hesperus’ are co-referential, Fido should also believe *of* Hesperus that it is the morning star. Now, the *de re* case seems unproblematic, but what is at issue is the *de dicto* case. The result creates a puzzling consequence with respect to the use of belief in ordinary discourse since we are more or less inclined to say that Fido does not believe that Hesperus is the morning star, given his beliefs and knowledge about Phosphorus and Hesperus. If all the Russellian can do is to insist that when Fido believes that Phosphorus is the morning star, he also believes that Hesperus is the morning star in virtue of the *de re* belief about Phosphorus, the answer is not satisfactory to overcome our intuition, for we somehow feel that there ought to be some difference between believing the propositions expressed by these two sentences. The difference could be semantic, epistemic, metaphysical or whatever you like, but to say that there is no difference between them is a response which only an extraordinarily sophisticated person could find plausible.

Aware of the problem, Salmon distinguishes the semantically encoded information and the pragmatically imparted information. It is this distinction, Salmon claims, which is vital for solving Frege’s puzzle for the Russellians. In general, the pragmatically imparted information is something which is neither semantically nor logically implied by the proposition. The distinction is characterised as follows:

It is extremely important in dealing with Frege’s Puzzle and related philosophical problems to distinguish the notion of the *information content* of a sentence on a particular occasion of its use from the notion of the *information imparted* by the particular utterance of the sentence. The first is a semantic

notion, the second a pragmatic notion.¹⁰

With respect to the pragmatically imparted information, what may first come to mind is the Gricean example: ‘The student has very nice handwriting’. The proposition, or the information content, expressed by the sentence is that the student to which the speaker refers has very nice handwriting. The pragmatically imparted information, if found in an academic recommendation letter, will imply that the student’s academic performance is not as strong as expected. But there are two questions about this distinction: first, how does the distinction help the Russellian solve Frege’s puzzle? Secondly, is the pragmatically imparted information of a sentence also a proposition, but different from the (semantic) proposition which the sentence expresses, or is it something other than a proposition? If it is also a proposition, then a sentence can be used to express numerous propositions, depending on the pragmatic circumstances in which it is uttered. However, given that Russellian propositions have only objects, properties, and relations as constituents, it is hard to see how the pragmatically imparted information can be characterised. Perhaps we may somehow *indexicalise* or *contextualise* objects or properties, and yet either comes with serious metaphysical cost. If the latter, then the Russellian theory of propositions defended by Salmon is not so appealing. The Fregean may simply ask why we need a pragmatic solution when the problem can be dealt with in a semantic way.

In any case, a tentative answer to explain the difference we feel in the case of Frege’s puzzle would be that sentences such as ‘Hesperus is a planet’ and ‘Phosphorus is a planet’ have the same semantically encoded information, i.e. they express the same proposition, but they impart different pragmatic information. Allegedly, this may explain our intuitive feeling of the *differences* between the the propositions expressed by the sentences used in Frege’s puzzle. We may specify that the difference is the pragmatically imparted information, and since the semantic encoded information is the same, the Russellian can finally avoid the puzzle. The current explanation, however, is not altogether satisfactory because we have not specified, but rather stipulated, what the difference is—that is, the pragmatically imparted information. This is at best a brief sketch of a satisfactory answer. Moreover, the same consideration should be raised not only for the above sentences, but also for the sentence ‘Hesperus is a planet’. Presumably, the sentence itself may carry different pragmatically imparted information, and thus even if two people believe the same proposition, namely Hesperus is a planet, it is possible that their beliefs have different pragmatically imparted information. Thus, they have the same beliefs despite our feeling that they have different beliefs.

It would be fair to say that the moral we may draw from Frege’s puzzle is that there

¹⁰Salmon (1986), p.58

is some difference between the identity statements, but whether the difference is in fact semantic could be debatable. Now, it is clear that Salmon does not want to accept that there is a semantic difference between the proposition expressed by ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’, but then an alternative explanation is unavoidable. In section 3.1.1, I mentioned that Salmon understands the belief relation as the existential quantification of a three-place relation *BEL*, which holds between believers, propositions, and manners of grasping propositions or ways of taking the content (‘guises’).

1. $[A \text{ believes } P]$ may be analysed as $(\exists x)[A \text{ grasps } P \text{ by means of } x \wedge BEL(A, P, x)]$.
2. A may stand in *BEL* to P and some x by means of which A grasps P , without standing in *BEL* to P and all x by means of which A grasps P .
3. $[A \text{ withholds } P]$ may be analysed as $(\exists x)[A \text{ grasps } P \text{ by means of } x \wedge \neg BEL(A, P, x)]$.¹¹

The variable x is understood to range over some type of entity, representing the proposition guises, the mode of acquaintance or the manner of representation of the proposition. Salmon does not give an explicit clarification of what these entities are, but it is somehow natural to read it as the mode of presentation. In fact, Salmon makes a similar remark with respect to what x stands for.

In fact, it is evident that the things that serve as third relatum for the *BEL* relation must be similar in some respects to Fregean senses.¹²

However, there is a severe problem. It should be stressed that Salmon’s solution invokes some kind of Fregean thesis in the explanation of belief relation, for the manner or the mode of presentation was first introduced by Frege to explain why, for names or sentences with the same reference, someone may know one while failing to know the other. From this aspect, Salmon does not distance himself from Frege enough to develop a Russellian theory of propositions.

3.1.4 Unsolved Problems

There are some problems with the proposal which Salmon offers. First of all, Salmon’s solution to Frege’s puzzle appears to be *very* Fregean, in particular in his explanation of the belief relation. Although it is always a question how far one must distance oneself from an x theory to be said to hold a non- x theory, Salmon’s theory turns out to be more Fregean than the alternatives provided by other Russellians. Forbes (1987) writes,

¹¹Salmon (1986), p.111

¹²Salmon (1986), p.120

However, any version of the Russellian view is faced with a dilemma; either it must make baldly implausible claims about the kind of example just described, or else it must introduce further apparatus to accommodate the pro-Fregean intuitions one has about such cases. But when this extra apparatus is introduced, the resulting theory runs the risk of dissolving into a notational variant of the Fregean one. And despite his insistence to the contrary, I am unsure that this is not true of Salmon's account.¹³

However, this is not meant to be a decisive criticism, and it should not worry Salmon unless he wants to draw a radical distinction from the Fregean. Roughly, the theses advanced by Salmon are that the meaning of some given sentence, such as 'Socrates is wise', is the singular proposition it expresses, and the meaning of a name is nothing but its referent. As long as the recognition of the mode of presentation does not conflict with these two theses, it should not pose any real threat to Salmon's theory. Only in the case of propositional attitudes can the theory be regarded as a mixture of the Russellian and the Fregean theories of propositions, such that there is little theoretical elegance because a back door for the Fregean is opened, even though there is no internal inconsistency. Yet, if we are looking for some theory of propositions which is systematic and explanatory at the same time, Salmon's theory is not the one to be favoured.

The more severe problem for Salmon's proposal, I think, is argued in Schiffer (1987, 2006), which is related to the Attitude Question. Schiffer argues that Salmon's theory cannot account for iterative or nested propositional attitudes. Consider the following case:

Fido believes that Tully is Tully, but Fido does not recognise that Tully is Cicero. Tibbles is an excellent historian and knows that Tully is Cicero. What is more, Tibbles also knows that Fido fails to recognise that Tully is Cicero.

From the above case, it follows that Tibbles rationally believes that Fido believes that Tully is Tully and that Fido does not believe that Tully is Cicero. Now, Schiffer argues that Salmon cannot make sense of Tibbles's belief about Fido. According to Salmon's theory, Fido believes the proposition Tully is Tully under a propositional guise, or a mode of presentation, m , but not under another propositional guise m' . For Tibbles to report Fido's belief correctly, it requires Tibbles to have the same propositional guise which leads Fido to withhold belief from the proposition that Tully is Cicero. However, the proposition simply does not have such guises for Tibbles. Tibbles knows well that the proposition Tully is Tully is no different when it is represented under the guises m and m' .

¹³Forbes (1987), p.456

Let me restate the problem again: for Fido, there are two propositional guises of the proposition Tully is Tully (or Tully is Cicero), which result in the feeling that he is believing one but not the other. On the other hand, Tibbles does not have a recognition failure when the proposition is presented as m' , the one which causes Fido to withhold belief from the proposition. There could be other propositional guises of the proposition Tully is Tully, and Tibbles might still withhold it under certain guises. Nevertheless, it is certain that Tibbles believes the proposition when it is presented as m . Now the question is whether Tibbles believes the proposition under m' . If yes, presumably it will be difficult to see why Fido would fail to believe the proposition. If not, then it is difficult to see how Tibbles can report Fido's withholding belief from the proposition when it is presented as m' .

3.2 Fine and Russellian Propositions

Fine (2007) proposes a new solution to Frege's puzzle, as a Russellian, by rejecting the standard notion of compositionality. According to the standard notion of compositionality, if two sentences are structurally the same and yet semantically different, it must be the case that their *basic* constituents are semantically different. It follows that the semantic difference between the identity sentences 'Cicero = Cicero' and 'Cicero = Tully' rests upon the semantic difference between 'Cicero' and 'Tully'. However, Fine accepts that the meaning of a name is simply its referent, so 'Cicero' and 'Tully' have the same meaning provided that they co-refer. Yet it would follow that the identity sentences are semantically the same if the standard notion of compositionality is held to be true. The proposal is that in order to explain the semantic difference, it is the semantic relation *coordination* between 'Cicero, Cicero' but not 'Cicero, Tully', which provides the basis for the novel conception of compositionality.

Compositionality is often regarded as stating a relation between sentence meaning and constituent (lexical) meaning, regardless of which account of meaning is employed. In this aspect, it is a neutral principle. However, an account of compositionality, as integrated in the theory, has to explain two significant semantic features: semantic sameness and semantic difference. An application of compositionality would say something like the following: any two sentences are semantically the same if and only if their constituents have the same meaning and their structure is the same. But with respect to identity sentences in Frege's puzzle, in which our intuition may be that ' $a = a$ ' and ' $a = b$ ' are semantically different despite their sameness of truth-value, philosophers who accept theories of direct reference are somehow unable to capture the intuition. And yet it seems natural and plausible to accept that there is not only a cognitive difference but

a semantic difference as well. One may question whether it is the cognitive difference between the identity sentences which suggests the semantic difference, or the other way around. That is, it could be the case that the semantic difference suggests that there is a cognitive difference. The question over which should be primary is not the main concern here. But it is important to keep in mind that in due course, it will be assumed that for a linguistically competent speaker, if there is a cognitive difference, there is also a semantic difference and *vice versa*.

In what follows, ‘semantic difference’ is regarded as an important notion relative to compositionality. I shall, following Fine, say that two sentences are semantically different if they differ in their meanings or semantic roles. The terms ‘meaning’ and ‘semantic role’ should be understood as neutrally as possible. That is, their uses have no bearing on how we should understand the concept of meaning, and there is no necessary commitment to meaning entities, either. The relation between compositionality and the semantic difference between sentences, if any, is that the difference can be explained by the semantic difference of their constituents or a syntactic difference in their structure. For instance, the semantic difference between ‘Cicero = Tully’ and ‘Cicero = Cicero’ depends upon the semantic difference between the constituents, and the semantic difference between ‘Sherlock loves Irene’ and ‘Irene loves Sherlock’ will be explained by the syntactic difference in the structure.¹⁴

Given that ‘Cicero = Tully’ is semantically different from ‘Cicero = Cicero’, a natural explanation, entailed by the standard conception of compositionality, will be that the semantic roles of ‘Cicero’ and ‘Tully’ are different. But this is exactly where Fine disagrees. The main reason for the disagreement is that Fine accepts both the Fregean thesis that there is a semantic difference between the two identity sentences and the Russellian thesis that if two terms are semantically different, they will be referentially different. And yet one cannot retain both theses without giving up the standard conception of compositionality. Instead of going for a non-compositional semantics, an alternative conception of compositionality is proposed. I shall first discuss the rejection of compositionality as Intrinsicity in Fine’s semantic relationism. Fine suggests that instead of seeking the semantic difference of the identity sentences in terms of the semantic difference of ‘Cicero’ and ‘Tully’, the semantic difference may reside in the semantic relation, which is coordination, between ‘Cicero, Cicero’ and ‘Cicero, Tully’. An exposition of the required semantic relation will also be discussed. Finally, an examination on the connection between semantic difference and compositionality is carried out. I argue that the semantic-relational explanation of the semantic difference between sentences has some

¹⁴There is, however, a problem here. One might see the structure as xRy and therefore argue that the semantic difference in these two sentences still relies on the semantic difference in their constituents. A more detailed discussion will be carried in section 3.2.3.

shortcomings if we consider some sentences in which there is only one occurrence of the name.

3.2.1 The Rejection of Compositionality

Let us reconsider Fine's characterisation of Frege's puzzle in section 3.1.1. I have shown that the Fregean would reject the Referential Link (F4), and the Russellians who follow Salmon's path would reject the Cognitive Link (F2). Both rejections are well-argued. On the one hand, the Fregean has a convincing example to support their rejection of the Referential Link. From the astronomical discovery that 'Hesperus' and 'Phosphorus' are used to refer to Venus, we know that even when the sense of 'Hesperus' is the evening star and the sense of 'Phosphorus' is the morning star, the two names refer to the same object. The Russellians, on the other hand, can appeal to the same set of examples and claim that there is in fact no semantic difference if they refer to the same thing. One person's *modus ponens* is another's *modus tollens*. Thus, the disagreement has no easy reconciliation. In sum, there is some reason to think that the two identity sentences are semantically different, and it is, perhaps, equally reasonable to think that two names which co-refer are not semantically different.

It should be noted that a full-blooded theory of meaning is not assumed at this stage, but only some pre-theoretical intuitions about the meaning expressed by the linguistic items will be employed. In other words, I shall neither explain the semantic difference between sentences in terms of their difference in truth-conditions, nor in terms of their assertion conditions, to name a few. The focus is rather on the relation between sentences and their constituents in the sense that if two sentences are semantically different and have the same structure, should it be the case that their *basic* constituents are semantically different as well? Thus, our discussion will be restricted to some sentences in which the semantic difference of sentences depends on the semantic difference of their constituents, and the main concern is whether Fine has provided a satisfactory account which explains the semantic difference between sentences and gives a plausible understanding of compositionality.

Given that 'Cicero = Tully' is semantically different from 'Cicero = Cicero', a natural explanation, entailed by the standard conception of compositionality, will be that the semantic roles, or the meanings, of 'Cicero' and 'Tully' are different. But this is exactly where Fine disagrees. The main reason for the disagreement is that Fine accepts both the Fregean thesis that there is a semantic difference between the two identity sentences and the Russellian thesis that if two terms are semantically different, they will be referentially different. And yet one cannot retain both theses without giving up the standard conception of compositionality. Fine's diagnosis is that even if it is accepted that there is

a semantic difference, we still could salvage the Russellian theory of propositions with a rejection of the standard conception of compositionality. However, it should be clarified that Fine's rejection of it does not imply that Fine is proposing a non-compositional semantics. Quite the contrary, Fine only argues against the conception of compositionality which seems to have been taken for granted for ages, namely Intrinsicity:

(Intrinsicity) If the identity sentences 'Cicero = Cicero' and 'Cicero = Tully' are semantically different, and thus the pairs of names 'Cicero, Cicero' and 'Cicero, Tully' are semantically different, then so are the names 'Cicero' and 'Tully'.¹⁵

Taken at face value, it does not seem to be the case that compositionality would entail Intrinsicity. However, with respect to the semantic difference between sentences, since compositionality is about how the sentence meaning is *constituted* or *determined*, it should also provide an explanation of the semantic difference. Supposing that two sentences are semantically different, by compositionality, it follows that either the meanings of their constituents or their structures are different. Let us further assume that the structure is the same, and it follows that the meanings of their constituents are different. Intuitively, what it suggests is that there is a semantic difference between 'Cicero' and 'Tully', but Fine emphasizes the difference should be found in the pairs 'Cicero, Cicero' and 'Cicero, Tully'.

Now, we may ask, 'What is the semantic difference between the pairs "Cicero, Cicero" and "Cicero, Tully"?' It is obvious that the semantic difference cannot rely on the typographic difference, even if in most cases it does, since we may use the same string of typography to refer to different objects. Moreover, the semantic relation between names must be different from the case of variables. Where the semantic value of x and y can be said to take different values, the case is different when we turn to names, since both 'Cicero' and 'Tully' take the same semantic value, at least in the Russellian framework. Alternatively, Fine suggests that there is a semantic relation which holds in 'Cicero, Cicero', but not in 'Cicero, Tully', which is *representing as the same*.

Fine further characterises the relation 'representing as the same' as follows:

I would like to suggest that two expressions will represent an object as the same if it is a semantic fact that they represent the same object. Let us say that two names *strictly* corefer if it is a semantic fact that they corefer. The suggestion is that for two names to represent an object as the same is for them strictly to corefer.¹⁶

¹⁵I have adapted the definition in order to demonstrate the relation between the semantic difference of the identity sentences given, and the semantic difference of their constituents.

¹⁶Fine (2007), p.43

An account of semantic facts is therefore needed to explain the semantic relation in detail. Fine distinguishes two kinds of semantic facts, (1) facts as semantic to topic and (2) facts as semantic to status. An example may illustrate the distinction. The fact that ‘snow is white’ is true and the fact that ‘furze’ is synonymous with ‘gorse’ are both facts as semantic to topic, but only the latter is also a fact as semantic to status. Hence, the latter kind of semantic facts are facts ‘that are not merely statable in semantic terms but also belong to the semantics of a given language’.¹⁷ The use of ‘semantic fact’ henceforth will be restricted to the fact as semantic to status.

Now we are in a better position to see how the semantic relation ‘representing as the same’ comes to work. The fact that ‘Cicero’ and ‘Tully’ refer to the same object is not a semantic fact as to status, but an empirical, or historic, fact. However, the fact that ‘Cicero’ and ‘Cicero’ corefer is a semantic fact as to status. The distinction of facts as semantic to status and facts as semantic to topic can therefore provide grounds for the semantic relation of ‘representing as the same’ and ‘representing as being the same’, respectively. While the latter holds both in ‘Cicero, Cicero’ and ‘Cicero, Tully’, only the former holds in ‘Cicero, Cicero’. So far it seems that Fine’s proposal succeeds in telling the difference between ‘Cicero = Cicero’ and ‘Cicero = Tully’ from the stance of the Russellian. But we have not yet seen how we should understand compositionality in relational semantics apart from the rejection of Intrinsicity. This will be carried out in the next section.

3.2.2 A Relational Semantics for Names

The standard semantics for the Russellians will be characterised below in order to contrast it with the semantics Fine advocates from the perspective of semantic relationism. In the standard Russellian semantics, the semantic value, or the content, of a name is the object to which it refers, the content of a predicate is the property or its extension, and the content of the sentence is ‘the proposition to the effect that the object has the property’.¹⁸ An immediate problem with the semantics given is that we have no way to tell the difference between ‘Cicero = Cicero’ and ‘Cicero = Tully’. Alternatively, Fine’s answer to the problem is as follows:

The natural way to proceed is to let difference in ‘coordination’ among names show up as differences in coordination among the objects to which they correspond.¹⁹

¹⁷Fine (2007), p.43

¹⁸Fine (2007), p.54

¹⁹Fine (2007), p.54

To cash out, the semantic difference between ‘Cicero loves Cicero’ and ‘Cicero loves Tully’ is that in the first sentence, the two occurrences of Cicero, represented by ‘Cicero’ and ‘Cicero’, are coordinated, while in the second sentence, the occurrences of Cicero, represented as ‘Cicero’ and ‘Tully’, are not coordinated. The definition of proposition coordination is as follows:

Suppose we are given a sequence of propositions (or contents) $P = p_1, p_2, \dots, p_n$ ($n > 0$). By a *coordination-scheme* \mathcal{C} for P is meant an equivalence relation on the occurrences of individuals in p_1, p_2, \dots, p_n which is such that two occurrences of individuals are related by \mathcal{C} only if they are occurrences of the same individual. Intuitively, a coordination-scheme tells us how the occurrences of individuals within the propositions are or are not coordinated. A *coordinated sequence* of propositions (or contents) is then an ordered pair $(P; \mathcal{C})$ where P is a sequence of propositions (or contents) and \mathcal{C} is a coordination-scheme for P .²⁰

For a singular proposition p , e.g. Cicero loves Cicero, we can assign two coordination-schemes for the occurrences of the object Cicero in p , calling them c_1 and c_2 . One of the coordination-schemes, \mathcal{C}_1 , would relate c_1 to c_2 while the other, \mathcal{C}_2 , would not relate c_1 to c_2 . We then have, according to Fine, two coordinated propositions obtained from p , $p_+ = (p, \mathcal{C}_1)$ and $p_- = (p, \mathcal{C}_2)$, and we call them *positively coordinated* and *negatively coordinated* propositions respectively. Now we are in a position to give the compositional semantics for sentences in the language. Consider again the identity sentences ‘Cicero = Cicero’ and ‘Cicero = Tully’. The content of the coordinated propositions can be determined by the content of ‘=’ and the coordinated sequences of individuals assigned to ‘Cicero, Cicero’ and ‘Cicero, Tully’, respectively. In the former case, we have a positively coordinated proposition which relates ‘Cicero’ to ‘Cicero’, and in the latter case, we have a negatively coordinated proposition which does not relate ‘Cicero’ to ‘Tully’. The main point, as I see it, is that Fine no longer sees the two identity statements as expressing the same proposition, but rather as expressing different coordinated propositions generated from the original proposition and the coordination scheme.

3.2.3 Semantic Difference and Compositionality

Of the instances concerning semantic difference, so far we have only considered a particular range of sentences, namely the sentences in which the semantic difference can be explained by the semantic relation of the pairs x, x and x, y . The former is coordinated,

²⁰Fine (2007), p.55-6

but the latter is not. Intuitively, there are other sentences which are semantically different, and yet the question on their coordination relation cannot be effectively raised. It seems plausible to say that the sentences ‘Cicero is a Roman orator’ and ‘Tully is a Roman orator’ are semantically different, if one finds that there is a semantic difference between ‘Cicero = Cicero’ and ‘Tully = Cicero’. The reason is that we may regard ‘ $x = \text{Cicero}$ ’ as a predicate Cx in the language, and thus if Ca and Cb are semantically different, so are Ra and Rb , where ‘ a ’, ‘ b ’ are names and Rx is the predicate ‘ x is a Roman orator’. However, Fine only accepts the semantic difference between the identity sentences but not between the sentences ‘Cicero is a Roman orator’ and ‘Tully is a Roman orator’, when they are considered in isolation. It is possible that the propositions expressed by these two sentences, when considered in isolation, are not different, but the difference would emerge when other Tully-propositions (or Cicero-propositions) are jointly considered.²¹ If one does not find it plausible, I think that one must give arguments against the claim that ‘ $x = \text{Cicero}$ ’ is a genuine predicate.

Let us now consider the following four sentences in two groups:

1. Group 1

(a) Cicero = Cicero

(b) Cicero = Tully

2. Group 2

(a) Cicero is an orator.

(b) Tully is an orator.

Comparing the responses made by the Fregean, the standard Russellian and the Russellian put forth by Fine (the Finean Russellian) brings an interesting result. Now, the Fregean would claim that all four sentences express different thoughts (or propositions), since one can always believe one without believing the other, it implies that these four sentences are semantically different. For some Russellian, e.g. Salmon, there is no semantic difference between sentences in Group 1 or between sentences in Group 2, though there is a semantic difference between any sentence in Group 1 and any sentence in Group 2. For Fine, it is admitted that sentences in Group 1 are semantically different to each other, but it is denied that sentences in Group 2 are semantically different. How could this be?

Given the Russellian semantics for names, the semantic role of ‘Tully’ and ‘Cicero’ is simply to refer to objects. Assuming the standard compositionality, it follows that the two sentences have the same meaning. However, the moral drawn from Frege’s

²¹Fine suggested this response to me in conversation.

puzzle is that sentences containing distinct names which refer to the same referent are cognitively different, i.e. if one believes that Cicero is an orator, it does not follow that one also believes that Tully is an orator, and thus ‘Cicero’ and ‘Tully’ are also semantically different. A common response made by the Russellian is that sentences which are semantically the same can still be cognitively different (cf. Salmon’s approach). The cognitive difference is therefore disconnected with the semantic difference, unlike Frege’s approach. However, Fine cannot make the same response, since the relational semantics is able to account for the semantic difference between these identity sentences in Frege’s puzzle, it would be an embarrassing result if it can only explain the semantic difference of a restricted kind of sentences, i.e. sentences in which there are at least two occurrences of names.

For most Fregeans, cognitive difference is closely connected to semantic difference, i.e. if two sentences are cognitively different, they are semantically different and *vice versa*. For the Russellian and Fine, however, it is no longer the case that cognitive difference implies semantic difference. We have some cases which are cognitively different but semantically the same. It seems that Fine aims to preserve the Fregean result in his theory, but the relation between cognitive difference and semantic difference is only partially preserved, in the sense that they are in tandem only for sentences with at least two occurrences of name. However, for sentences with only one name, we have to consider them with other sentences about the same individual. In other words, sentences in Group 2, if considered in isolation, express the same proposition, although they may be cognitively different. In short, it seems that if one thinks that cognitive difference implies semantic difference, one should go for the Fregean. If one disagrees that cognitive difference implies semantic difference, i.e. whether sentences are semantically the same is independent of their cognitive values, then one should go for the Russellian.²² However, it is not clear which is the case for the Finean Russellian. We have seen that in the case of identity sentences, it seems that Fine prefers the Fregean over the Russellian in some aspects, but in the cases of ordinary sentences of predication (without identity), Fine prefers the Russellian. It is difficult to see how to retain consistency while steering between these two opposite camps.

One may immediately contest: ‘Isn’t it the case that for Fine, the standard notion of compositionality (Compositionality as Intrinsicity) is already rejected?’ It is true that if we reject the standard notion of compositionality, the above argument will not go through. However, I find it rather difficult to give a relational explanation of the semantic difference. Presumably, it may proceed as follows: we can associate the proposition *Q*,

²²Yet, in Chapter 6, I will defend a Fregean theory of propositions in which cognitive difference does not imply semantic difference.

namely Cicero is a Roman orator, with two coordination-schemes, and then generate one positively and one negatively coordinated proposition to tell the semantic difference. Yet, there is only a single occurrence of the object Cicero in Q . Fine seems to address something relevant to the problem, when he introduces the term *coordinated body of propositions*:

We may then take a coordinated *body of* propositions to be a set of coordinated sequences of propositions, consisting of a given coordinated sequence $(P; \mathcal{C})$, and all of the corresponding sequences $(P'; \mathcal{C}')$. We should note that a coordinated body of propositions is capable of containing several different occurrences of the same proposition. $P = p_1, p_2$, for example, may consist of two occurrences of the proposition that Cicero is an orator (corresponding to the sentences ‘Cicero is an orator’ and ‘Tully is an orator’), with neither occurrence of Cicero positively coordinated to the other.²³

This passage seems to suggest that both ‘Cicero is an orator’ and ‘Tully is an orator’ are in the set of coordinated sequences of the proposition that Cicero is an orator, but there could be no coordination relation between these two. But it can hardly answer our question without further qualification, for we are looking for an account which explains the semantic difference of ‘Cicero is an orator’ and ‘Tully is an orator’. Saying that they are in the coordinated body of propositions without coordination to each other does not help. It should be noted that at one stage, Fine suggests that we can also tell the semantic difference of the conjunctions ‘Cicero is a Roman and Cicero is an orator’, and ‘Cicero is a Roman and Tully is an orator’, by taking them as positively and negatively coordinated propositions of the conjunctive proposition that Cicero is a Roman and Cicero is an orator. It seems that we can then view the semantic difference of ‘Cicero is a Roman orator’ and ‘Tully is a Roman orator’ in a similar fashion, such that the former is a positively coordinated proposition and the latter is a negatively coordinated proposition of the conjunction of the proposition that Cicero is a Roman and the proposition that Cicero is an orator.

However, there are some problems with respect to the notion of compositionality in relational semantics. For example, ‘Cicero is a Roman and Tully is an orator’ would express a negatively coordinated proposition of the conjunction of the proposition that Cicero is a Roman and the proposition that Cicero is an orator. In order to characterise the negatively coordinated proposition, we have to first identify the conjunction of the proposition that Cicero is a Roman and the proposition that Cicero is an orator. It follows that for each proposition which is (positively or negatively) coordinated with

²³Fine (2007), p.56

other propositions, its content cannot be given *directly*, and is somehow derived from the original proposition and the coordination-scheme. However, what the original proposition is could be an arbitrary matter of fact. We may, as we like, take the proposition that Cicero is a Roman and Tully is an orator as a positively coordinated proposition of the conjunction of the proposition that Cicero is a Roman and the proposition that Tully is an orator. Or we may see it a negatively coordinated proposition of the conjunction of the proposition that Cicero is a Roman and the proposition that Cicero is an orator. It is not appealing to say that a positively coordinated proposition has the same content as, or is semantically equivalent with, a negatively coordinated proposition. Given that compositionality in relational semantics takes coordination into account, it is hard to see how the same proposition can be generated from the same constituents and a different coordination relation. If it is allowed, then we are at risk of losing the distinction between ‘Cicero = Cicero’ and ‘Cicero = Tully’. Suppose that positively coordinated propositions and negative coordinated propositions do not have the same content. It would follow that the content of a given proposition can be generated indefinitely based on its coordination relation with other propositions, also not an appealing result.

3.3 The Three Questions and Russellian Propositions

Despite the internal problems of the two Russellian theories of propositions given above, a question relevant to the present inquiry is how they may address the Three Questions characterised in Chapter 2.

It is somewhat surprising that the Russellian theories of propositions proposed by Salmon and by Fine show no attempt to solve the unity question, which was one of the concerns which Russell (1903) had while developing a theory of propositions. It is also hard to find any clue from their theories indicating how a solution is possible. Perhaps a response could be made as follows: given that sets have no unity question, the thesis that Russellian propositions are structured entities of objects and properties is also free from the unity question, since propositions can be represented as sets of objects and properties. Salmon implicitly takes the propositions to be *ordered* sets when he analyses the belief relation, and Fine explicitly invokes *ordered* sets of propositions as sequences of coordinated propositions. Thus, it is possible that the unity question can be avoided.

One might immediately retort that if the answer is viable, Russell would have had little concern about the unity question. Although Russell did not give up the theory of propositions in the presence of the unity question, it is undeniable that the question is regarded as one to which he had no answer. But it is clear that Russell was already aware of set theory at that time. Thus, is it the case that somehow the answer to the unity

question just slipped his mind? I believe not. Here is a possible reason. Suppose that for any two propositions, either they have something in common or not. For instance, the proposition that Socrates is wise and the proposition that Socrates is snub-nosed have the object Socrates in common. But the proposition that Socrates is wise and $2+2=4$ share nothing in common. The former is a contingent proposition about Socrates, and the latter is a necessary proposition about numbers. To conceive propositions as ordered sets will invalidate the supposition. For any non-empty set has the empty set as a subset, and thus for any two (non-empty) propositions, they always have something in common. This result is not too substantial in the sense that the Russellian could add a condition to preclude empty sets when we ask whether these two propositions have something in common or not. It might be awkward and is likely *ad hoc*, but it seems fine. In any event, the Russellian can reply that the unity question is a question common to theories of propositions according to which propositions are structured. Thus, failure to address the question is not a serious cost for the theory. Moreover, with respect to the decomposition question, I have suggested that it will not create too many obstacles for the Russellian theories of propositions.

Despite their success of dealing with the decomposition question, the Russellians might have a difficult time dealing with the Representation Question. Recall that Russellian propositional constituents are objects, properties and relations. Yet, these are exactly the things which aren't (by nature) representational. Presumably, they are part of the world, and they do not represent the world as being in a certain way. Thus, it is hard to see how sets of objects, properties and relations would be representational. I believe that this is the underlying idea of the challenge discussed in Chapter 2 where Sainsbury (1996) and Soames (2010b) argue that sets cannot be the truth-bearers. A way to avoid the challenge is to say that Russellian propositions are genuine truth-bearers, whereas set-theoretical constructions of objects, properties and relations are mere representations of the propositions. However, if the ordered sets are merely representations of Russellian propositions, the question which representation correctly represents a Russellian proposition is inevitable. Given the fact that there are indefinitely many ordered sets which can be used to represent a given Russellian proposition, it somehow undermines the intelligibility of Russellian propositions. Yet, we may, on behalf of the Russellians, reject that the ordered sets are merely representations of Russellian propositions by asserting that the ordered sets of objects and properties *are* Russellian propositions, and while there are many seemingly compatible set constructions, only one of them is the one recognised by the theory. I shall also sidestep the issue of whether Russellian propositions as ordered sets are able to be the fundamental truth-bearers. As Lewis (1986b) argues, a proposition P is just a set of possible worlds, and P is true in some world w if w is a member of P .

I find Lewis's explanation genuinely plausible, and I believe a similar treatment is also available for the Russellians. It may run, roughly, as follows: A (Russellian) proposition that P is true iff P . Of course, this is not to say that any set can be a truth-bearer, for we cannot extend it to pure sets. Yet, from the fact that some sets cannot be truth-bearers, it does not follow that no set can be a truth-bearer. However, the Attitude Question is one of the major reasons why philosophers are driven from Russellian theories of propositions. As we have seen above, there is no natural or systematic explanation of how belief reports should go. Fine admits that belief reports are not compositional, even under his refined conception of compositionality. For someone who shares sympathy with the author that propositions are the objects of propositional attitudes, the Russellian theory of propositions seems implausible. Finally, I return to the question whether propositions are necessary or contingent beings. As I see it, the most prominent objection to Russellian propositions is from Plantinga (1983), which we shall see in the next section.

3.4 Against Russellian Propositions

Singular propositions, as opposed to general propositions which are about properties or relations, are propositions directly about objects or individuals. We might ask: what is it for a proposition to be *directly about* an individual? The Russellians would say something like the following:

A proposition P is directly about some object $x =_{df}$ P has x as a constituent.

It should be noted that this only serves as a rough characterisation of what counts as a singular proposition. The reason is that it is not clear whether the proposition that one of Socrates' properties is wisdom is singular or not. On the face of it, the proposition seems to involve Socrates as a constituent, but the proposition is in fact about the properties of Socrates rather than about Socrates. These problematic cases will be left aside and here the focus will only be on the canonical cases, such as the proposition that Socrates is wise or the proposition that Socrates is a philosopher.

The intent of this section is to argue that the Russellian theory of propositions is not a plausible theory of propositions. My focus here would be on the ontological issues around the Russellian singular propositions, rather than their ability to represent things as being thus-and-so. I have briefly discussed the argument by Plantinga (1983) for the necessary existence of propositions in section 2.1.3, and here I shall elaborate the argument in detail. According to Plantinga, it is possible that Socrates does not exist and the proposition that Socrates does not exist exists, which is incompatible with the Russellian theory of propositions. The Russellian is committed to the thesis that if the

object which the proposition is about does not exist, the proposition does not exist either. In order to block the argument, so far there are two responses made by the Russellians. One is a distinction of the inner and outer notions of truth, or of a proposition being *true in* and being *true at* a world. The other is to argue that it is not possible that Socrates does not exist, i.e. Socrates necessarily exists. In what follows, I begin with a characterisation of the Russellian theory of propositions, and I show that the Russellian theory of propositions is not tenable because of the problems raised from Plantinga's argument in section 3.4.2. The first response, made in terms of the distinction between *true in* and *true at*, is discussed in section 3.4.3, and the second response, which is a commitment to necessitism, is carried out in section 3.4.4. I argue that the distinction between the two notions of truth is either circular or unintelligible in section 3.4.5, and the commitment to necessitism is similar to the commitment to the Fregean theory of propositions, which is supposed to be avoided by the Russellians, in section 3.4.6. What is worse, even if we grant that the distinction is intelligible, it cannot be used to refute a modified version of Plantinga's argument. Moreover, necessitism is incompatible with the Russellian theory of propositions as conceived by most Russellians. Thus, I conclude that the Russellian theory of propositions is untenable.

3.4.1 The Russellian Singular Propositions

Recall that Russellian theories of propositions are characterised as holding **(RP)** and **(DR)**. For the purpose of argument, let me introduce another thesis, **(OD)**:

(RP): A (singular) proposition is a structured complex entity consisting of objects and properties.

(DR): The semantic value or content of a name is just its referent.

(OD): The existence of a singular proposition *ontologically depends* on the existence of the object it is about.

Although the last thesis **(OD)** needs some elucidation, I shall skip the relevant discussions in Fine (1995) about how it ought to be understood. At this stage, it should only be noted that **(OD)** is not an instance of the following characterisation of ontological dependence: *x* depends on *y* if and only if necessarily, *x* exists only if *y* exists. However, **(OD)**, regardless of what its correct characterisation is, does imply the conditional that if the singular proposition in question exists, then the object it is about exists. This can be regarded as a necessary condition for **(OD)**. In other words, **(OD)** implies that if the object in question does not exist, there would be no singular propositions about it. It is this implication which suffices for the present purpose.

One of the theoretical benefits of holding the Russellian theory of propositions is that it avoids commitment to Fregean senses or entities similar to them in giving an account of propositions. Fregean propositions are also structured complex entities, but they consist of Fregean senses, which are abstract and *sui generis* entities. Some philosophers are hostile to these entities since they worry that the ontology may be overpopulated without necessity. A Russellian theory of propositions, on the other hand, requires no more than objects, properties, relations and a proper notion of propositional structure. Given that Russellian propositions are structured complex entities consisting of objects and properties, whether these propositions are contingent or necessary beings would depend upon whether objects and properties are contingent or necessary. For the sake of the simplicity, I shall hold that properties are necessary beings and consider both the view that objects are contingent and the view that objects are necessary. According to the former, singular propositions are contingent beings since (concrete) objects exist only contingently and the existence of a singular proposition ontologically depends upon the existence of the object it is about. This is defended in Fine (1985), where he argues for a similar view with respect to the singleton which has Socrates as its member. The latter view is defended in Williamson (2002), which I shall leave to section 3.4.4.

3.4.2 Plantinga's Anti-Existentialism

Plantinga (1983) argues that propositions are necessary beings, i.e. that propositions cannot have contingent objects as constituents. It is taken for granted that the following principle holds:

(CB): There are contingent beings.

Presumably, Socrates is one of the contingent beings, i.e. Socrates does not exist in every possible world. Thus, possibly, Socrates does not exist. The argument then runs as follows:²⁴

(P1) Possibly, Socrates does not exist.

(P2) If (P1), then *that Socrates does not exist* is possible.

(P3) If *that Socrates does not exist* is possible, then *that Socrates does not exist* is possibly true.

(P4) Necessarily, if *that Socrates does not exist* had been true, then *that Socrates does not exist* would have existed.

²⁴The proposition that Socrates does not exist is represented in italics, *that Socrates does not exist*, to avoid excess verbiage.

(P5) Necessarily, if *that Socrates does not exist* had been true, then Socrates would not have existed.

(P6) Therefore, it is possible that Socrates does not exist and *that Socrates does not exist* exists.²⁵

It follows that singular propositions exist necessarily, since they exist in the worlds where the object which they are directly about exists, and they also exist in the worlds where the object in question does not exist. However, the result conflicts with the combination of **(CB)** and **(OD)**. Why? **(OD)** implies that if the object which the proposition is about does not exist, the proposition does not exist either, and **(CB)** entails that some objects are contingent existents, and, presumably, Socrates is among them. It follows that singular propositions about Socrates are not necessary existents, contradicting Plantinga's conclusion.

Since the proposition that Socrates does not exist exists even though Socrates does not exist, the object Socrates cannot be a propositional constituent. What, then, should be the propositional constituent? Plantinga claims that it is the individual essence of Socrates which is the propositional constituent, therefore arguing against the thesis that existence precedes essence. The individual essence or haecceity, of Socrates is supposed to exist necessarily, although, given that Socrates is a contingent being, his individual essence is not instantiated in every possible world. Whether Plantinga's account of propositions is defensible or not is not relevant to the present inquiry because the argument itself does not commit to a particular theory of propositions. Rather, it only purports to show that if a Russellian holds **(CB)**, and Socrates is one of the contingent beings, the Russellian theory of propositions is not plausible.

The Russellians have made two kinds of responses to the argument. First, it is argued that the term 'true' occurring in the premises is equivocal. Thus, the argument is invalid. Secondly, the Russellian may join Williamson in rejecting the first premise and argue for the thesis that Socrates necessarily exists. We shall consider these two responses in turn.

3.4.3 The distinction of Inner and Outer Truths

In response to Plantinga's argument, Fine (1985) argues that there are two notions of truth when we say a proposition is true with respect to a possible world, the *inner* and the *outer* notions.

According to the outer notion, a proposition is true in a possible world regardless of whether it exists in that world; according to the inner notion, a

²⁵Plantinga (1983), p.9-10

proposition is true in a possible world only if it exists in that world. We may put the distinction in terms of perspective. According to the outer notion, we can stand outside a world and compare the proposition with what goes on in the world in order to ascertain whether it is true. But according to the inner notion, we must first enter with the proposition into the world before ascertaining its truth.²⁶

It should be noted that the distinction is not novel, for it first appeared in Adams (1981). Although the distinction is made under a different name, *true in* and *true at*, it nevertheless expresses the same thing.

Let us mark this difference in point of view by saying that the proposition that I never exist is (in the actual world) true *at* many possible worlds, but *in* none. Only propositions that are included in a world-story are true *in* the world it describes. Among actual propositions they are the ones that would be true if that world were actual. Thus it is true *at* possible worlds in which Napoleon would exist and I would not, that I am not identical with Napoleon; but that proposition is not true *in* those worlds, because it would not exist in them (and I would not enter into any relation of non-identity if one of them were actual).²⁷

We can see that both Adams and Fine accept that ‘Socrates does not exist’ expresses a proposition, and that the existence of Socrates is not necessary. Moreover, they both find the thesis (OD) plausible. Thus, in the possible worlds where the object in question does not exist, the proposition about the object would not have existed either. However, even if the proposition in question does not exist, we can still talk about its truth-condition. This drives Adams and Fine to adhere to the distinction between *true in* and *true at*, or the inner and outer notions of truth.

Fine argues that there is no unique reading of ‘true’ rendering the argument valid. The premise (P4) is true on the inner notion of truth, but what the premise (P2) and (P3) require is the outer notion of truth. The idea is that if Socrates does not exist, then the proposition that Socrates does not exist will only be true under the outer notion of truth. Why? I think that it is assumed that the existence of a singular proposition depends on the existence of the object it is directly about. Thus, in a world where Socrates does not exist, there would be no singular proposition about Socrates in that world, although, from the outer notion of truth, we can still say that the proposition that Socrates does not exist is true with respect to that world. Thus, contrary to Plantinga, Fine argues that singular propositions about contingent beings are themselves contingent beings.

²⁶Fine (1985), p.163

²⁷Adams (1981), p.22

3.4.4 Russellian Singular Propositions and Necessitism

Williamson (2002) proposes a similar argument to Plantinga (1983), and yet it is used to argue that necessarily, everything necessarily exists.

- (W1) Necessarily, if I do not exist, then the proposition that I do not exist is true.
- (W2) Necessarily, if the proposition that I do not exist is true, then the proposition that I do not exist exists.
- (W3) Necessarily, if the proposition that I do not exist exists, then I exist.
- (W4) Necessarily, if I do not exist, then I exist.
- (W5) Necessarily, I exist.²⁸

We may substitute for ‘I’ any singular term we please, and the result is that necessarily, everything necessarily exists. Moreover, the necessary existence of objects and the necessary existence of properties and relations jointly guarantee the necessary existence of singular propositions. Therefore, it seems that the Russellians may have a way to respond to Plantinga’s argument, though in a radical way. Following Williamson’s argument, it is also not possible that Socrates does not exist and yet the proposition that Socrates does not exist exists, precisely because Socrates is a necessary being. Whereas Fine focuses on the premises (P3) and (P4), the consequence of Williamson’s argument is a direct denial of (P1).

To motivate the argument, Williamson claims that (W1) is an instance of the following principle:

- (1+) Necessarily, the proposition that P is true if and only if P .

It can be read as the necessitation version of the principle that the proposition P is true iff P . The principle, without the necessity operator, is quite self-evident. The only apparent difficulty for it is the presence of some semantic paradoxes, i.e. we might form a proposition which is self-referential and asserts its own falsity. For instance, the proposition that P is that P is not true. Applying (1+), we get: the proposition that P is true iff P is not true. It follows that the proposition that P is not true is true iff P is true. But the proposition that P is not true is just P itself. Therefore, we have P is true iff P is not true. Williamson replies that it is not clear that P is itself a proposition, even though it appears that it can be expressed by some sentences. I think that semantic paradoxes are complicated issues, and it is not clear that the problem lies

²⁸Williamson (2002), p.233-4

within the principle (1+). For now, it is clear that the proposition that I do not exist and the proposition that Socrates does not exist do not raise paradoxical results. So, we may accept that at least (1+) is intelligible in most cases.

Now we shall turn to the second premise (W2), which is an instance of (2+).

(2+) Necessarily, if the proposition that P is true then the proposition that P exists.

Careful readers may notice that (2+) is just the notion of truth employed in Plantinga's argument—that is, the truth of a proposition entails its existence. Yet, if the distinction between two notions of truth is sound, it is clear that Williamson's argument will suffer from the same criticism made by Fine and Adams against Plantinga's argument. For Fine and Adams, the premise (W1) is true on the outer notion of truth while the premise (W2) is true on the inner notion of truth, so there is still an equivocation of the notion of truth used in the premises. In other words, Williamson cannot accept that there is such a distinction between the notion of truth in the premises. Since it is relevant to my discussion of the distinction in section 3.4.5, I shall not pursue the issue here. It should only be noted that there are independent grounds for justifying (2+) without appealing to the inner notion of truth. One of them comes from the thesis that if an object exemplifies any property or stands in any relation to other objects, the object exists.²⁹ From the thesis, we may see that if the proposition that P had not existed, there would have been nothing to be true, provided that propositions are the fundamental truth-bearers. Furthermore, according to the Russellian theories of propositions, a proposition is a structured complex entity which consists of objects, properties and relations. Thus, if the object o had not existed, there would have been no such object to be constitutively related to that proposition. Existing is thus a necessary precondition of having properties. However, it ought to be kept in mind that the concept of existence here is understood to be a logical sense of 'exist'. What does this mean? Roughly, when we say that a concrete object such as Socrates exists, it may mean that the object occupies a certain region of space-time. However, properties, pure sets and other abstract objects do not occupy any region of space-time, so it seems that the existence condition of abstract objects is different from the existence condition of concrete objects. Williamson, on the contrary, is arguing for a unified sense of 'exist', such that the existence of an object does not imply its being concrete or its occupying a certain region of space-time.

We can therefore symbolize ' x exists' by the familiar formula $\exists y(x = y)$, where the quantifier is not restricted to any particular kind of thing. In particular,

²⁹This is sometimes called *Serious Actualism*, but is there a non-Serious Actualism?

it must not be restricted merely by definition to what has spatial or temporal location.³⁰

What follows is that concreteness is not essential to the existence of beings. Socrates is contingently concrete, since Socrates ceased to be concrete once his body had perished. Nevertheless, for Williamson, Socrates still exists and this is the reason why we can still say things about Socrates. Before we turn to the next section, let me briefly point out that (W3) is entailed by (OD), which is endorsed by the Russellian theories of propositions. So, if some Russellians want to question Williamson's argument, the premise (W2) seems to be the only target. (W1) is unassailable once they accept the principle that necessarily, the proposition P is true iff P .

3.4.5 Against the Distinction of Inner and Outer Truth

I agree with Plantinga's argument that propositions exist necessarily. In this section, I argue that the distinction between inner and outer notions of truth is unfounded at the level of propositions, if we think that propositions are the primary bearers of truth and falsity. A related issue is whether we could define the outer notion of truth without the inner notion of truth. Moreover, it will be shown that the distinction is only available to those who already commit to the contingent existence of propositions. Assuming that there is such a distinction is somehow circular if it is used to support that propositions are contingent beings. Finally, I shall argue that even if the distinction can be made intelligible, it cannot be used to argue against a modified version of Plantinga's argument.

To start with, let us consider whether we are able to find any independent ground for the distinction. Williamson, in reply to the distinction, argues that we can make the distinction at the level of sentences or utterances, but the same reasoning cannot be extended to propositions. It seems that in certain cases, e.g. sentences and utterances, the distinction is required in order to make sense of the following examples:

(24) There are no sentences.

(25) There are no utterances.

Consider a possible world where there are no sentences. The sentence that 'there are no sentences', namely (24), is *true at* that world, although it is not *true in* that world. Therefore, there is indeed a distinction between *true at* and *true in* in the case of sentences. Similar results are also obtained with respect to utterances. Nevertheless, it is questionable whether it can be extended to propositions. The sentence or the utterance is

³⁰Williamson (2002), p.244

true at that world in virtue of the way things are in that world. In other words, the truth of (24) or (25) depends upon the fact that the proposition that there are no sentences, or the proposition that there are no utterances, is *true in* that world. Williamson (2002) also finds the distinction unintelligible when we consider propositions:

An utterance of the sentence ‘There are no utterances’ in this world is true of a world in which there are no utterances.³¹ For the way the utterance says things to be is the way they are if that world obtained; in other words, the proposition is true in that world.³²

Therefore, even though the distinction is intelligible with respect to sentences or utterances, the result cannot be applied to propositions. Moreover, I think that the point can be extended further. We can see that in order to make sense of the distinction between the inner and outer notions of truth with respect to sentences and utterances, we have to appeal to the inner notion of truth as applied to propositions. That is, a sentence is *true at* a possible world iff the proposition which the sentence expresses is *true in* that world. It seems that there is no available definition of the outer notion of truth without involving the inner notion of truth. It seems that the inner notion of truth is more fundamental, in the sense that it can be used to define the outer notion of truth, and we cannot define the inner notion of truth in terms of the outer notion of truth.

It is worth pointing out that in order to make sense of the distinction between the inner and outer notions of truth, it is already assumed that propositions are contingent beings. The reason is that the two notions would be equivalent if propositions exist necessarily, and there would be no such distinction available. To see this, suppose that propositions are necessary beings; and it is hard to see how such a distinction can be made. We find the distinction holds either in the above case of utterances or in the case of sentences precisely because neither utterances nor sentences are necessary beings. In terms of theoretical neutrality, the distinction is certainly not neutral. To accept that the distinction can be applied to propositions is to commit to the contingent existence of propositions. This indicates that the distinction is circular if it is used to prove the contingent existence of propositions, although it is not easy to show where the circularity is involved while making the distinction.

Finally, I shall argue that even if there is a sensible argument for the distinction, the distinction offers no help to invalidate Plantinga’s argument. Consider the modified argument:

(L1) The proposition that Socrates does not exist is possibly true.

³¹Williamson’s use of ‘true of’ is the same as the use of ‘true at’ characterised above.

³²Williamson (2002), p.240

- (L2) Necessarily, if the proposition that Socrates does not exist is true, then the proposition that Socrates does not exist exists.
- (L3) Necessarily, if the proposition that Socrates does not exist is true, then Socrates does not exist.
- (L4) Therefore, it is possible that Socrates does not exist and the proposition that Socrates does not exist exists.

In symbols, the argument has the following form, which is valid in any normal modal logic.

$$\Diamond P, \Box(P \rightarrow Q), \Box(P \rightarrow R) \text{ Therefore, } \Diamond(Q \wedge R).$$

(L1) seems obvious, given that Socrates is not a necessary being, so the proposition that Socrates does not exist is possibly true. (L2) is an application of the claim that only things which exist can have properties. (L3) is an instance of the necessitation of the truth-schema. We can arrive at the same conclusion without applying the notions of being *true in* or being *true at* a world. This shows that even if the distinction between the two notions of truth is intelligible, it cannot be used to refute the modified argument. What, then, can the Russellians do? I believe that, for them, it is the necessitation of the truth schema which must be rejected. That is, they should reject that necessarily, the proposition that P is true iff P , leaving some cases where no proposition can be expressed. One such instance is the possible non-existence of Socrates, such that if it is the case, there does not exist a proposition that Socrates does not exist which is true. However, in section 2.1.3, I showed that why we need the necessitation of truth-schema. Without it, it seems that there is no way to ground the following notion of validity—necessarily, if the premises are true, then the conclusion is also true.

3.4.6 Against Necessitism for Russellian propositions

The response made by Williamson appears to be intelligible for the Russellians. If everything necessarily exists, Plantinga's argument does not run through. The Russellians can avoid the inconsistency once they accept necessitism. Although it seems to be a serious cost of the theory if necessitism must be accepted, the Russellians can still stick firmly to their position.

Yet, I shall argue that things aren't so. Williamson's argument has the consequence that the Russellian singular propositions are necessary beings. Therefore, Plantinga's argument does not threaten the Russellian theory of propositions constructed by Williamson. But here is the downside: whether Williamson's proposal can be accepted by other Russellians is a contentious issue. I think that the motivation of the Russellian theories of

propositions is undermined by Williamson, and thus other Russellians should not endorse it. The Russellians can be seen as those who want to avoid commitment to unnecessary abstract objects such as senses, whose nature seems to be a sheer mystery. Objects and properties, on the other hand, seem to be entities of which we have a better understanding. If propositions can be constructed in terms of these entities, we can avoid the problem of Fregean senses. Recall that one of the characteristic theses of the Russellian theories of propositions is **(RP)**, that Russellian propositions are complex entities consisting of objects and properties. The term ‘objects’ does not refer to objects in Williamson’s sense, but rather to concrete objects. This is compatible with another thesis **(DR)**, that the semantic value of a name is its referent. Holding necessiticism in Williamson’s sense does not give the Russellians a ground to retain the Russellian theories of propositions. A revision of either **(RP)** or **(DR)** is called for. Now we can see why a ‘hardcore’ Russellian should not accept Williamson’s proposal. A commitment to these necessary beings seems no better than a commitment to the Fregean senses. In any case, that there are Russellian singular propositions, conceived in the way which is characterised above, is not tenable.

Chapter 4

Propositions as Sets of Worlds

4.1 The Possible World Approaches to Propositions

In the previous chapter, it was argued that the Russellian theory of propositions, according to which propositions are structured entities consisting of objects, properties and relations, cannot answer the Three Questions in a satisfactory way. The difficulties raised by the unity question seem serious: there is no proper criterion to distinguish a proposition from an aggregate or a collection of its constituents. While appealing to sets and membership or subset relations could be a potential remedy, they lack arguments showing that the *structure* of propositions, aimed to be captured by the theory, can be preserved in terms of set-theoretical structure. Thus, I conclude that the Russellian theories of propositions cannot address the Composition Question in a satisfactory manner. Moreover, there is no natural answer to the Attitude Question. With respect to propositional attitudes, either one introduces the mode of presentation, which is essentially a commitment to Fregean entities, by the back door,¹ or one pays the price of denying that belief reports are compositional.² In addition, even though Fine provides a more natural explanation of Frege's puzzle, the explanation cannot be extended to sentences where there is only a single occurrence of proper names, i.e. the two sentences 'Hesperus is a planet' and 'Phosphorus is a planet' express the same proposition when we consider them *in isolation*.

Of course, the Russellian theory of propositions is not the only option for those who wish to preserve propositional structures. The Fregean theory of propositions also has that virtue but pays the price of the ontological extravagance of *senses*. Ontological extravagance is not the only vice of the Fregean theory, though. It is often criticised for lacking an explanation of the nature of senses. It is therefore common to seek alternative

¹See Salmon (1986) and Forbes (1987).

²See Soames (2010a) and Fine (2010).

theories of propositions which are based on some well-understood or more fundamental notions. The possible-world account of propositions is a typical instance of such a move.

Not only can propositions be reduced to worlds, worlds can also be reduced to propositions. For instance, in Adams (1974), possible worlds are defined in terms of propositions. More specifically, a possible world, called a *world-story*, is a maximal consistent set of propositions.

That is, it is a set which has as its members one member of every pair of mutually contradictory propositions, and which is such that it is possible that all of its members be true together.³

Although the approach is relevant to the present inquiry, it reverses the order of reduction or explanation, i.e. possible worlds are reduced to sets of propositions, and thus it does not fall into the scope of this chapter, which concerns only the accounts in which propositions are reduced to, or represented by, sets of possible worlds. I shall consider two such accounts, given by Lewis (1986b) and Stalnaker (1984, 2012) respectively. Roughly, Lewis's approach is that propositions can be reduced to sets of possible worlds, and possible worlds are maximal concrete spatio-temporally related mereological sums. To say that possibly, Socrates is not snub-nosed is to say that there is a world w , in which the counterpart of Socrates is not snub-nosed.⁴ Talk of possibilities and necessities can be reduced to talk of quantification over possible worlds. For Stalnaker, possible worlds are ways the actual world might be. In other words, possible worlds are just properties of the actual world. Propositions are regarded as functions from worlds to truth-values. In a sense, both theories offer a reduction of propositions in terms of possible worlds. But there is a slight difference. For Lewis, propositions are sets of possible worlds. Suppose that a proposition P is true only with respect to w_1 and w_2 . Then the proposition P is just the set $\{w_1, w_2\}$. But for Stalnaker, propositions are functions from possible worlds to truth-values. Set-theoretically, functions are ordered pairs. Thus, the proposition P is identified as the ordered pairs $\langle w_1, T \rangle, \langle w_2, T \rangle$ and so on. In general, Stalnakerian propositions are instances of the following: $\langle W, V \rangle$, where W is regarded as a variable for possible worlds and V is for truth-values, truth and falsity. In any case, the difference is of some interest regarding how they choose to identify propositions and whether the

³Adams (1974), p.225.

⁴According to the counterpart theory, individuals are world-bound, and thus an individual a can only exist in one world. Some would say that $\Diamond Fa$ should be read as a is in several worlds, and in some of them, a has the property F . In the counterpart theory, $\Diamond Fa$ simply says that a has a counterpart in some world w and that counterpart has the property F . Counterparts of a in some world w are objects which resemble a in important aspects, such as intrinsic properties and extrinsic relations, more closely than other things do. In some worlds, there is only one counterpart of a , while in others, there could be multiple counterparts. For more details on the counterpart theory, see Lewis (1968, 1973).

account offered is a reduction or a model of propositions.⁵

In what follows, I shall start with Lewis's reduction of propositions in terms of possible worlds. A common criticism of the theory is that it cannot distinguish necessary propositions because they are true in all possible worlds. Given that propositions are sets of worlds, necessary propositions would be the set of all worlds, and thus necessary propositions are identical. Although it is a consequence of the reductive proposal, Lewis has a solution to the demand for a fine-grained conception of propositions. I shall discuss whether the solution is effective in section 4.2.1. Then, in section 4.2.2, I turn to whether the theory can answer the Three Questions. In effect, I think that Lewis can meet the theoretical requirements for solving the Three Questions, i.e. there are enough resources in modal realism to deal with the various puzzles associated with the Three Questions. However, it does not seem to be a unified theory. For propositional attitudes, Lewis argues that there are irreducible *de se* properties, which are the objects of propositional attitudes but they are not propositions. This leaves a bifurcated account rather than a unifying account. It is bifurcated in the sense that propositions are sets of worlds, but objects of propositional attitudes are properties. Of course, if properties are regarded as sets of their instances, with which Lewis agrees, there might be no substantial difference between propositions and properties. Yet, in Lewis (1979), two theses with respect to attitudinal objects are argued:

- (1) When propositional objects will do, property objects also will do.
- (2) Sometimes property objects will do and propositional objects won't.⁶

While every proposition can correspond to a property, not every property corresponds to a proposition. This suffices for the distinction between propositions and properties relevant to the problems about attitudinal objects.

I then move onto Stalnaker's account of propositions in section 4.3.1. Stalnaker claims that possible worlds are ways the world might be, namely properties of the world. A notable thesis of Stalnaker is that possible worlds are contingent abstracta, depending on the resources we have at the actual world. Why are they contingent? One reason is that possible worlds are maximal properties that the actual world might have, or equivalently, maximal consistent sets of propositions. Each of these propositions is maximal in the sense that for each actual proposition P , either P or $\neg P$ will be entailed by any of them. Stalnaker, however, accepts that if the object which a given singular proposition is

⁵There are various ways of understanding the term 'reduction'. For instance, a theory may reduce another theory by replacing some theoretical terms and giving some proper translation. Here I mean the ontological reduction which concerns the question whether a putative entity can be reduced to another kind of entity.

⁶Lewis (1979), p.514

about does not exist, then the proposition does not exist either. Provided that singular propositions about contingent beings are contingent as well, sets of maximal consistent propositions, or maximal consistent propositions, are only *contingently maximal*, since it is possible for them to be further refined. The reason is that these maximal consistent propositions include singular propositions, and singular propositions are contingent beings. Suppose that a maximal consistent proposition entails that Kripke had seven sons. Had the maximal proposition been actualised, there would exist other singular propositions about the seventh son of Kripke. Although these singular propositions does not exist in the actual world, they could have been true with respect to the actual world, if the maximal consistent proposition were actualised. Thus, a maximal consistent proposition could be further refined to say things about Kripke's seventh son.⁷ In section 4.3.2, I shall examine whether Stalnaker's account can possibly answer the Three Questions. The account conflicts with the necessitation of the truth schema, and thus the schema must be abandoned in Stalnaker's theory.⁸ I argue that this consequence is too expensive to accept.

A shared feature in both accounts is that there is no place for the alleged propositional structure, which is conceived as essential for those who accept that propositions are structured entities. In a sense, it makes the possible-world accounts immune to most parts of the Composition Question. That is, if the unity question or the decomposition question is to apply at all, the possible-world accounts of propositions can deal with them at ease. A tentative answer is this: suppose that we extend the meaning of 'propositional constituents' to mean whatever *constitutes*, in the broad sense, a proposition. It follows that the possible worlds, be they Lewisian or Stalnakerian, are the constituents of propositions. Now, the answer to the question of what distinguishes a collection or a set of propositional constituents and a proposition is simply that there is no difference at all. The decomposition question can be answered in a similar fashion. Is there any problem with this answer? I see no great difficulties. But is it sufficient to convince us that the only intelligible theory of propositions is a reductive account of propositions in terms of possible worlds? I think not, mainly because both accounts seek answers to the problem of propositional attitudes from places other than within the theory of propositions.

⁷For a fuller elaboration of the claim that maximal consistent propositions are contingently maximal, see Stalnaker (2012), Chapter 2.

⁸The schema is: Necessarily, the proposition that P is true iff P .

4.2 Lewisian Propositions

4.2.1 Propositions as sets of possible worlds

Lewis (1986b) puts forth a thesis which he calls modal realism, i.e. there exists concrete mereological sums which are maximal and spatio-temporally related, but mutually spatio-temporally disconnected.⁹ Possible worlds are just these mereological sums, which are concrete. Moreover, Lewis says, ‘... absolutely *every* way that a part of a world could possibly be is a way that some part of some world is’.¹⁰ A virtue of the theory is that we can account for the truth-conditions of modal propositions in a clear manner. The proposition that possibly, Socrates is not a philosopher is true just in case there is a world in which the counterpart of Socrates is not a philosopher. And the proposition that necessarily, $1 + 1 = 2$ is true just in case in every world, $1 + 1 = 2$ is true. Possibility and necessity are understood as existential and universal quantification over concrete worlds. Moreover, properties are just sets of possibilities, which are possible individuals, and propositions are just sets of possible worlds. One might notice an analogy between properties and propositions, since both are sets of possibilities, and the only difference seems to be whether the members of the set are maximal spatio-temporally related mereological sums. In fact, this observation is correct, as Lewis says,

I identify propositions with certain properties—namely, with those that are instantiated only by entire possible worlds. Then if properties generally are the sets of their instances, a proposition is a set of possible worlds. A proposition is said to *hold* at a world, or to be *true at* a world. ... A proposition holds at just those worlds that are members of it.¹¹

We may summarise Lewis’s view as follows:

1. Properties are sets of their instances.
2. Propositions are properties of worlds.
3. Thus, propositions are sets of possible worlds.

However, as long as the structure of propositions is not involved, there is no difference between necessary propositions since they have the same members, and in the light of set theory, they are identical with each other. Lewis is aware of the fact that it is sometimes unintuitive to say that all necessary propositions are the same one. The

⁹Strictly speaking, the claim that there are concrete worlds ought not to be characterised as modal realism since ‘realism’ is often associated with the commitment to the existence of abstract entities.

¹⁰Lewis (1986b), p.2

¹¹Lewis (1986b), p.53-54

same consideration may also appear for properties which are necessarily co-extensive, e.g. triangularity and trilaterality. To say that a figure is triangular means that it has (exactly) three angles, while to say that a figure is trilateral means that it has (exactly) three sides. Although they are co-extensive, the co-extensiveness of triangularity and trilaterality is non-trivial, while the co-extensiveness of triangularity and triangularity is obviously trivial. How are we supposed to capture the non-triviality? Lewis says,

Let A be the relation of being an angle of; let S be the relation of being a side of. Suppose for simplicity that these can be left as unstructured relations; we could go to a deeper level of analysis if we like, but that would complicate the construction without showing anything new. Let T be the higher-order unstructured relation which holds between an unstructured property F of individuals and an unstructured relation G of individuals iff F is the property of being something which exactly three things bear relation G to. A certain unstructured property is the unique thing which bears T to A , and therefore it is the (unstructured) property of triangularity. Therefore let us take the structured property of triangularity as the pair $\langle T, A \rangle$, and the structured property of trilaterality as the pair $\langle T, S \rangle$. Since S and A differ, we have the desired difference between the two pairs that we took to be our two structured properties¹².

The proposal is that structured properties can be reduced to set-theoretical constructions of unstructured properties, such that even if the two properties are necessarily co-extensive, we can still find a way to distinguish them. Thus, Lewis's account does not dictate that propositions should be coarse-grained. Rather, a fine-grained conception of propositions is allowed. In the case of propositions, even with a proposition, P , and its double-negation, $\neg\neg P$, Lewis can still provide a distinction between them. An obvious way of doing it is to associate a relation N which holds between the proposition and its negation, such that $\neg P$ has the form $\langle N, P \rangle$. Now, P and $\langle N, \langle N, P \rangle \rangle$ indeed differ, although they are equivalent.

We can see that necessary propositions can still be distinguished if we need them to be. Yet, a potential objection is that Lewis merely provides *a* distinction between necessary propositions or equivalent propositions, but this is not the desired distinction. Presumably, what the opponent has in mind is that the sentential structures as well as the propositional structures are more complex than set-theoretical constructions. The objection is *prima facie* valid. It is intuitively plausible that the structures of propositions are somehow isomorphic to the structure of sentences which express those propositions.

¹²Lewis (1986b), p.56

The structure of sentences could have some deep grammatical form, such as LF, unable to be captured by sets of worlds. It follows that although there is a proposed distinction between propositions which are equivalent but structurally different, it may not be the difference captured by the theories of structured propositions. I believe that the objection is misguided. Recall Lewis (1970)'s work on formal semantics, where a detailed characterisation of sentential structures is given. Lewis can implement the structure, as fine-grained as one might expect, into the sets of worlds to meet the demand.

4.2.2 When Lewis Faces the Three Questions

As briefly discussed in section 4.1, Lewis has a clear answer to the Composition Question if propositions are thus construed. Recall that the Composition Question consists of three questions, the unity question, the decomposition question and the question whether propositions are necessary or contingent beings. With respect to the unity question, Lewis can simply reply that if it happens that by the term 'propositional constituents', we mean not only the constituents of structured propositions, such as senses for Frege or objects and properties for the Russellians, but also to members of a set, then a set whose members are possible worlds is just a proposition. For those who think that we cannot have such an extended use for the term, the unity question still does not apply to Lewis, since there are no genuine candidates which can be called 'propositional constituents' within his theory of propositions. With respect to the decomposition question, a similar response can be given along the lines above. The third question, however, is somewhat trickier.

Given that Lewisian possible worlds are just maximal spatio-temporally connected mereological sums of possibilia, to ask whether propositions are necessary or contingent beings is merely to ask whether possible worlds and possibilia are necessary or contingent beings. But the question may not be a 'legitimate' one for Lewis. To see why, let us consider the following example. In the possibilist discourse, to say that it is possible that Socrates is not a philosopher is to say that there is a counterpart of Socrates in some world w , but the counterpart is not a philosopher. Now, if possible individuals are necessary beings and possibility and necessity are just existential and universal quantifications over the worlds, it follows that these individuals exist in every possible world. Yet, it cannot be the case that Socrates, for instance, exists in every possible world, given that different possible worlds are spatio-temporally disconnected and that Lewis rejects individuals overlapping different worlds. Thus, the claim that possible individuals are necessary beings can only be understood as their having counterparts in every possible world. Suppose that Socrates is a necessary being. It follows that in every world, there is a counterpart of Socrates. This is plainly false because there are worlds where no living beings exist. Presumably, nothing in that world is a counterpart of Socrates. Therefore,

Socrates is not a necessary being. It might follow that if worlds are mereological sums of possible individuals, these worlds are not necessary beings either. Certainly, this is loose talk, for Lewis is a reductionist with respect to modality; modal facts and modal terms are reduced to non-modal facts and non-modal terms. If we understand that, for Lewis, necessity and possibility are reduced to quantification over worlds, we will also see such a question is idle if we want to know whether these worlds are necessary or contingent.

A similar challenge is raised in Bealer (1998): the possible-world accounts of propositions cannot satisfactorily provide a reductive analysis of the following proposition.

(26) It is necessary that some proposition is necessary.¹³

The original argument provided by Bealer is a bit obscure,¹⁴ and the following is my reconstruction of it.

1. Suppose that (26) is true.
2. It follows that the proposition that some proposition is necessary has the property of being a necessary proposition.
3. The property of being a necessary proposition is a set of necessary propositions.
4. The set of necessary propositions also includes the proposition that some proposition is necessary.
5. There is an unanalysed modality in the proposition that some proposition is necessary, which is not reducible to quantifications over possible worlds.

Let us compare the proposition that some proposition is necessary with the proposition that $2+2=4$. The latter proposition is necessarily true, which means that in all worlds, $2+2=4$ is true. Alternatively, we say that the set of all worlds is the proposition that $2+2=4$ and it has the property of being a necessary proposition. But the fact that the set of necessary propositions includes the proposition that $2+2=4$ is unproblematic. There is no irreducible modality in the proposition that $2+2=4$. However, the case is not so with the proposition that some proposition is necessary.

There are two possible responses which Lewis could make. First, the proposition that it is necessary that some proposition is necessary simply says that for every world, there is the set of all worlds. That is, we replace the modal facts by non-modal facts. There is, strictly speaking, no property which is being a necessary proposition, only the property

¹³Bealer discusses the account in which a proposition is a function from possible worlds to truth-values. In essence, this is not Lewis's view, but rather Stalnaker's. However, I have made essential translation in order for it to apply to Lewis's account.

¹⁴See Bealer (1998), p.5-6

of being the set of all worlds. In any case, it may not be the desired response since it is not clear whether for every world, there is the set of all worlds. Even though it is possible that we can somehow argue that for every world, there is the set of all worlds, it is certainly not a trivial proposition, contrary to the original one. Secondly, Lewis may admit that this is indeed a problem, but it is also a problem for any reductive analysis with respect to concepts or properties which are capable of being iterated. My view on this issue is that the reductive analysis must come to an end and reject some questions as illegitimate, and I believe that this is exactly the point where questions about whether propositions are necessary or contingent beings cannot be further pursued.¹⁵

The Representation Question is not a threat to Lewis, or so I argue. Some criticisms of the possible-world accounts of propositions rely on the argument that propositions are truth-bearers and sets of worlds are not truth-bearers, therefore, propositions are not sets of worlds. Perhaps what they mean is that there are *fundamental* truth-bearers, which are not sets. Otherwise, it is hard to see why the following characterisation would not work: a proposition P is true with respect to a world w iff w is a member of P . But even if we grant that propositions are fundamental truth-bearers, it is still difficult to see how the objection goes through. A possible line of thought is that propositions must represent the world as being thus-and-so, but sets do not have this feature, and it is the ability to inherently represent which makes propositions capable of being true or false. I shall examine and argue against this line of thought in Chapter 5. As for now, let me just point out that there is no obvious connection between the ability to be true or false and the ability to inherently represent the world as being thus-and-so.

With respect to the Attitude Question, Lewis (1979, 1986b) argues that the objects of propositional attitudes are properties, rather than propositions.

I fully support the policy of assigning [propositional] objects of uniform category. But I think we have not chosen the right category. Rather than standardising on propositions, I think we should standardise on properties. I want to make a case for two theses. (1) When propositional objects will do, property objects also will do. (2) Sometimes property objects will do and propositional objects won't.¹⁶

Recall that propositions are also properties, but they are of a specific kind, namely sets of

¹⁵There is yet another understanding of the question whether objects are necessary or contingent. It might be said that objects are necessary beings relative to this world iff the world cannot exist without having these objects as parts. In fact, this is the question of mereological essentialism. Mereological essentialism is the thesis that a mereological complex object cannot survive if it gains or loses a part. Whether Lewis's theory would imply the consequence of mereological essentialism is a debatable issue (see Bennett (2015)). Even if it is so, it seems irrelevant to the present inquiry.

¹⁶Lewis (1979), p.514

worlds. There is a fundamental distinction between propositions and properties in terms of their members. In order for a set to be a proposition, each member has to be a maximal spatio-temporally related mereological sum, while for properties, a set of any object(s) is a property. The attitudinal objects, according to Lewis, are properties in general and are not restricted to propositions. The reason is that although every proposition corresponds to a property, it is not the case that every property corresponds to a proposition. Most notably, the egocentric propositions are not sets of worlds, but are sets of individuals. To see this, consider the following example of two gods.

Consider the case of the two gods. They inhabit a certain possible world, and they know exactly which world it is. Therefore they know every proposition that is true at their world. Insofar as knowledge is a propositional attitude, they are omniscient. Still I can imagine them to suffer ignorance: neither one knows which of the two he is. They are not exactly alike. One lives on top of the tallest mountain and throws down manna; the other lives on top of the coldest mountain and throws down thunderbolts. Neither one knows whether he lives on the tallest mountain or on the coldest mountain; nor whether he throws manna or thunderbolts.¹⁷

According to Lewis, the predicament of the gods is that propositional knowledge cannot exhaust the objects of knowledge. No matter how many propositions one knows that are true in that world, there are other ‘objects of knowledge’, namely who one is, which are not propositional. In the case of two gods, one of the gods has the property of living on top of the tallest mountain, and he would have more knowledge if he knew that, i.e. he self-ascribed the property of living on top of the tallest mountain. The property does not count as a proposition because only he, but not the other, can make the self-ascription. On the other hand, the proposition that a god is living on top of the tallest mountain would be true at that world no matter who is self-ascribing the property. Thus, self-ascription of properties constitutes what Lewis calls an attitude *de se*, and we call the attitude *de dicto* when a proposition is its object. In general, the thesis is that ‘the *de se* subsumes *de dicto*, but not *vice versa*’.¹⁸

I have no objection to Lewis’s treatment of propositional attitudes, but I do think that it leaves a dichotomy between propositions and objects of propositional attitudes. Although every proposition can be an object of propositional attitudes, not every attitudinal object is a proposition. I see this as a weakness of Lewis’s account of propositions since I believe, and will show in Chapter 6, that there is a theory of propositions which is capable of giving a unifying account of propositions and propositional attitudes. That

¹⁷Lewis (1979), p.520-1

¹⁸Lewis (1979), p.521

is, I shall argue for the thesis that the objects of propositional attitudes are propositions and nothing else. Now, one might say that I have not precluded the possibility that a possible-world account of propositions can offer an account of propositional attitudes without appealing to properties. For instance, a two-dimensional semantics, in which every sentence has a primary intension and a secondary intension, may provide an account of propositional attitudes in terms of possible worlds. Roughly, the primary intension of a sentence is a function from *scenarios*, or centred worlds, to extensions, where *scenarios* are understood as ordered triples of worlds, individuals, and times in those worlds. The secondary intension of a sentence is a function from possible worlds to extensions. The primary intensions are used to characterise epistemological modalities in terms of worlds, while the secondary intensions are used to characterise metaphysical modalities. The account defended in Chalmers (2004, 2011), where a two-dimensional semantics is used to explain propositional attitudes and attitude reports, can be seen as a solution to the Attitude Question in terms of a possible-world account of propositions. I think that it may very well be the case that the proposal is successful, but two-dimensional semantics has its own problems, e.g. its commitment to modal rationalism—According to which, if a proposition cannot be ruled out by *a priori* reflection, then it is metaphysically possible. However, there seems to be cases where a claim and its negation are *a priori* coherent, while it is metaphysically impossible for them to be true together. In any case, I shall not pursue the issues around two-dimensional semantics because it does not fall within the scope of the present inquiry. Besides, we have seen that the reductive analysis encounters an issue when it comes to propositions with iterated properties. This could be a bullet to be bitten, but if it can be avoided, why should we bite the bullet? Therefore, I conclude that Lewis’s account of propositions does not provide adequate solutions to the Three Questions. It is time to look for other alternatives.

4.3 Stalnakerian Propositions

4.3.1 Propositions as Functions from Worlds to Truth-Values

Stalnaker (1976a,b) proposes that propositions are functions from worlds to truth-values. To conceive propositions in Stalnaker’s way is to give a relational analysis of property attribution (true and false) to propositions, i.e. a proposition is never true or false *simpliciter*, but always relative to a world. The reason is that propositions are represented by the ordered pairs of the form $\langle W, V \rangle$, where W is a variable for worlds and V is a variable for truth-values. The account also has the consequence that necessary propositions are in fact the same proposition. However, unlike Lewis, who offers a way

of modelling or representing the necessary propositions which captures the propositional structure, Stalnaker claims that it is a virtue of the theory that necessary propositions are identical. A defence of the claim can be found in Stalnaker (1981, 1987), where Stalnaker offers a metasemantic solution to propositional attitudes. Since the present inquiry is an ontological one, I will not go into the details of the metasemantic solution. I shall merely focus on the ontological issues about the propositions thus construed.

For Stalnaker, possible worlds, although they are conceived as abstracta, are contingent. This might strike us as unintelligible. How could abstract entities be contingent? Many abstract entities are commonly conceived as necessary, e.g. numbers, pure sets, and properties. It seems plausible to say that they cannot fail to exist regardless of how the world is. On the other hand, there are also some abstract entities which seem to be contingent, e.g. sets with contingent individuals as their members. If the individual in question does not exist, it seems that the set also fails to exist as well. We can see that Stalnaker conceives possible worlds as the latter kind of abstract objects. But what exactly are possible worlds? Stalnaker says,

I take them [possible worlds] to be *properties*—ways a world might be. ... [A] possible world is the kind of thing that is, or can be, instantiated or exemplified. An actualist needs the distinction between existing and being exemplified in order to be able explain the sense in which a merely possible world exists (a property the world might have had exists) and the sense in which it does not (no world that is that way exists). But second—and this is the point I want to emphasize—if possible worlds are properties, they are not *representations*—not mental or linguistic entities.¹⁹

I agree with Stalnaker that properties do not represent things in a certain way, although we can use properties, or in fact anything, to represent anything we like, as long as some desired properties or relations are preserved. For instance, different colours can be used to represent different political parties, but it seems questionable to say that the property being blue represents a blue mug as being blue. It would trivialise the exemplification or the instantiation of properties by objects as mere representations. In sum, possible worlds, or possible states of the world, are properties which can only be instantiated or exemplified by the actual world. There is but one minimal requirement for the kind of properties Stalnaker has in mind: maximality.

[A] possible state of the world must be maximal in the sense that it decides every proposition. But propositions (in the possible-worlds theory) are identified with sets of possible worlds (or equivalently, functions from possible

¹⁹Stalnaker (2012), p.8-9

worlds to truth-values), and on this account, the claim that possible worlds are maximal puts no constraints on the character of the worlds.²⁰

So far so good. But when Stalnaker says that propositions are functions from worlds to values, is he saying that propositions *are* just functions or that propositions *are represented* as functions? There are two available interpretations: first, propositions are modelled, or represented, by set-theoretical constructions of possible worlds. There are two equally good ways of modelling the proposition, i.e. as functions from possible worlds to truth-values or as sets of possible worlds. Secondly, propositions are reduced to functions from worlds to truth-values. The instances of the ordered pair $\langle W, V \rangle$ are just propositions. Yet, a question immediately follows: how can sets of possible worlds be equivalent to the instances of the ordered pair? It seems obvious that the set $\{w_1\}$ is not identical to the ordered set $\langle w_1, T \rangle$. A response to the objection is that they both represent the way which the actual world might be in the same manner. In fact, this might be the answer which Stalnaker would opt for, for it is stated that there are eight axioms for the theory of propositions.

- (S1) Every subset of a consistent set is consistent.
- (S2) The set of all true propositions is maximal consistent.
- (S3) Every proposition has a contradictory.
- (S4) For every set of propositions Γ , there is a proposition x such that Γ is equivalent to $\{x\}$.
- (S5) Every consistent set of propositions is a subset of a maximal consistent set.
- (S6) Equivalent propositions are identical.
- (S7) There exists a proposition that *necessarily* entails all propositions.
- (S8) For any set of propositions Γ , if Γ is consistent, then *necessarily* if Γ exists, then Γ is consistent.²¹

Stalnaker claims that these axioms suffice for a minimal theory of propositions, i.e. the set of axioms is satisfied in almost every theory of propositions. However, (S6) seems to be controversial. Notice that it says that equivalent propositions are identical, which is accepted neither in the Fregean nor the Russellian theories of propositions. Stalnaker provides two defences of the axiom; first, it is claimed that the coarse-grained conception

²⁰Stalnaker (2012), p.12

²¹Stalnaker (2012), p.24-29

of propositions is common to every theory of propositions, although they might differ in whether more fine-grained propositions should be allowed. Secondly, the conception of coarse-grained propositions is what we need for modal semantics.

Now we shall see why possible worlds (states) are contingent abstracta. Given the assumption of actualism, there is only one world, the actual world. Possible worlds are either possible states of the world or some configuration of the elements of the actual world. Stalnaker takes the former approach but insists that the possible states of the world must depend on the *resources available at the actual world*. Stalnaker says, ‘Since we are actualists, we have only the resources that the actual world provides for representing possibilities’.²² What are these resources? Presumably, this is just the question of what there is. The plausible answer is: (actual) objects, (actual) properties (and higher order ones), (actual) relations and (actual) propositions. I believe that actualists will agree on the claim. What they disagree about is what counts as an actual object and the like. For instance, Williamson (2002) argues that necessarily, everything necessarily exists, and Plantinga (1974) argues that there are uninstantiated individual essences. Stalnaker, on the other hand, rejects both approaches with the incredulous stare and argues that singular propositions are object dependent and that some objects exist only contingently. To say that singular propositions are object dependent is to say that if the object the singular proposition is about had not existed, the singular propositions would not have existed either. Given that some objects and some propositions exist contingently, it follows that the resources we have at the actual world are contingent. Moreover, since we are partitioning a logical space, which is the space of all logical possibilities, to get possible worlds with the resources we have, the ways of partition are themselves contingent, depending on the resources. Therefore, possible worlds are contingent abstracta and they are properties of the actual world. But what really are properties of the world? Properties are ways the world would have to be in order for them to be instantiated. They are also basic, not to be further defined. Stalnaker stresses that they are not representational, but we can only theorize about them by representing them (presumably in a model).

4.3.2 Revisiting the Three Questions

As shown in section 4.1, the account of propositions proposed by Stalnaker does not fall prey to the unity question or the decomposition question. But this does not mean that it can provide an answer which somehow preserves the propositional structure. On the contrary, propositions thus constructed are similar to Lewisian propositions, in the sense

²²Stalnaker (2012), p.13

that they are both sets of worlds. And yet, they differ in that for Lewis, fine-grained propositions can be represented in terms of ordered pairs of higher order properties, while for Stalnaker, it is not clear whether such a manoeuvre can be achieved. In fact, it seems that Stalnaker is happy with coarse-grained propositions when he says,

For purposes of modal semantics, we need a notion of proposition that is the right grain to ensure that our semantics is compositional, and a notion of proposition satisfying (S6) seems to meet this condition, at least if we are not trying to represent intentional mental states, even if further distinctions may be needed for other purposes.²³

It is not clear what Stalnaker has in mind. Perhaps it is this: Suppose that P is necessarily equivalent with Q . An argument is modally valid iff necessarily, if the premises are true, the conclusion is true. It seems that the coarse-grained propositions can be substituted *salva veritate* in modal arguments. That is, restricted to modal contexts, what is required is a coarse-grained conception of propositions. It should be noted that on the one hand, very few philosophers would deny that (modally) equivalent propositions cannot be substituted *salva veritate* in modal arguments. On the other hand, perhaps fewer philosophers would see equivalence as a criterion for identifying propositions. The reason is that a disjunction of a necessary proposition with a contingent proposition, e.g. the proposition that $1+1=2$ or the proposition that Socrates is wise, is equivalent to a necessary proposition, e.g. the proposition that red things are red. But we do have the strong feeling that these two propositions are not the same, although they are true in the same worlds. The proper claim seems to be that they are two equivalent propositions rather than one proposition. One might contest that Lewis also seems committed to the same consequence. Yet, Lewis is able to provide a model, successful or not, to distinguish necessary propositions. As long as Lewis's account is a reduction of propositions in terms of sets of worlds, the identification of propositions is provided by the members of the set, namely worlds, but not by the equivalence between propositions. We may find Lewis's account of propositions daunting, but this is not an objection to its identification conditions. Even though it seems that Stalnaker sees the entailment relation between propositions to be the most prominent feature of all, in order to fit his solutions to the problem of intentionality, holding that equivalence is what matters to the identification of propositions requires stronger arguments.

If we accept that Stalnaker is providing a model representing the propositions, rather than reducing propositions to sets of possible worlds, we may see how he can respond to some of the challenges. One of them is from Hoffman (2012), who argues that Stalnaker's

²³Stalnaker (2012), p.26. Stalnaker originally labels the axiom as (P6), but I use (S6) to keep it in conformity with the previous usage in section 4.3.1.

account of propositions leads to implausible results. To begin with, recall that the contingency of singular propositions comes from their dependence on the objects they are about, i.e., if a proposition is directly about an object, then necessarily, if the proposition exists, then the object exists. The argument from Hoffman (2012) goes against the combination of the following claims:

(CB): There are contingent beings.

(OD): If a proposition P is directly about an object o , then, necessarily, if P exists, then o exists.

(PW): Propositions are sets of possible worlds, and in particular, a proposition P entails a proposition Q if and only if for every possible world w , if P is true with respect w , then Q is true with respect to w .

Although **(CB)**, **(OD)**, and **(PW)** are not unanimously accepted, it at least can be seen that Stalnaker holds them. Now, let us abbreviate the proposition that Russell is wise as P , and the proposition that someone is wise as Q . The argument runs as follows:

(H1) Necessarily, P entails Q .

(H2) Necessarily, P entails Q , iff P is a subset of Q . (from **(PW)**)

(H3) Necessarily, if Q exists, then P exists. (from modal set theory)

(H4) Necessarily, if P exists, then Russell exists. (from **(OD)**)

(H5) Necessarily, if Q exists, then Russell exists. (from (2), (3), and (4))

It is worth emphasising that the conclusion is that necessarily, if the proposition that someone is wise exists, then Russell exists. This is absurd. Supposedly, given **(CB)**, Russell is one of the contingent beings. It implies that there is some world w where Russell does not exist. Yet, suppose Socrates has the property of being wise in w , and thus the proposition that someone is wise is true with respect to w . However, it follows that Russell also exists in the world, contrary to our assumption. Hoffman thus concludes that propositions are not sets of worlds, at least when they are conceived in the sense proposed by Stalnaker. I believe that the argument has an implausible consequence, and yet I also believe that it applies neither to Stalnaker nor to Lewis. For Stalnaker, the most plausible reply is to reject (H2) and (H3). Notice that Q is a general proposition whereas P is a singular proposition. According to Stalnaker, if the resources that we have are different, we have a possible world (state) where Q exists and is true but P does not exist and thus is not true. Thus, it is not the case that necessarily, if Q exists, then

P exists. So it does not follow that necessarily, if P entails Q , then P is a subset of Q . Once we see that Stalnaker is offering a way of representing propositions in terms of the set-theoretical construction of possible worlds, it is cogent to claim that the properties of sets do not apply to propositions. For Lewis, since the necessity operator is understood as a universal quantification over all worlds, and propositions are reduced to sets of worlds, the premise (H3) should be interpreted as: For every world w , if there is a set of Q -worlds, then there is a set of P -worlds. When we finish the required interpretation, we find that the argument states nothing substantial because the conclusion is just the following statement: For every world w , if there is a set of Q -worlds, then Russell exists. It might be trivially true or trivially false, depending upon how we understand the term ‘exists’.

Another issue with the account is that propositions are contingent abstracta. In Chapter 2 and 3, I have discussed Plantinga’s argument against *existentialism*, and his conclusion is that propositions are necessary beings. Since Stalnaker holds that propositions are contingent beings, Plantinga’s argument is a stone to be removed. In Chapter 3, we have seen Fine’s response to the argument by appealing to a distinction between the inner notion of truth and the outer notion of truth. I argued that even if the distinction is intelligible, Plantinga does not use ‘true in a world’ nor ‘true at a world’ in the argument. Rather, the argument can run through with a single notion of truth, true *simpliciter*.

Stalnaker offers a similar defence to Fine (1985) by arguing that the term ‘possible’ as it occurs in the consequent of (P2) and the antecedent of (P3) has two different meanings. The equivocation lies in two definitions of ‘possible’. The first understanding is that a proposition is possible iff it is possibly true. The second understanding is that a proposition is possible iff it is entailed by some possible world. For those who hold that some propositions are contingent and embrace the first definition of ‘possible’, (P2) is the premise to be rejected. Moreover, for those who favour the second definition of ‘possible’, (P3) is to be rejected. However, in order to make such a distinction, we still have to rely on the distinction between the inner and outer notions of truth, i.e. a distinction between *true at* and *true in* is called for. Stalnaker argues that the distinction can be established given the following assumptions.

- (1) Some propositions exist only contingently.
- (2) Every proposition has a contradictory.
- (3) Necessarily, only existing things have properties, and in particular, only existing propositions have the property of truth.

We have seen the defence for (1) above. Stalnaker holds that even though propositions do not have constituents or structure in the Russellian sense, they are somehow relevant

to the world. (2) is just the axiom (S3). And (3) is the doctrine common to actualists. The argument then goes as follows: in the light of (1), there are some propositions, presumably singular propositions, which exist contingently, i.e. there are some possible worlds (states) which do not include these propositions. Given (2), its contradictory is also not in the domain. Why? I suppose that it is because ‘having a contradictory’ is a property and only existing things have properties. Then, according to (3), neither the proposition nor its contradictory is in w , but given that w is maximal and consistent, either P or $\neg P$ will be entailed by w . In sum, for some proposition P , which exists contingently, and for any world w , either P or the contradictory of P will be entailed by w , but it is not the case that either P or the contradictory of P exists in any w . As a result, we have the distinction between the inner and outer notions of truth, given these assumptions.

I do not believe that there is such a distinction mainly because the distinction cannot offer any plausible response to Plantinga’s argument. To see why, we may drop (P2) and (P3) altogether and replace them with one single premise (P2*):

The proposition that Socrates does not exist is possibly true.

We can have a reconstruction of Plantinga’s argument. The new premise, together with other premises, is still a valid argument, but without the equivocation identified by Stalnaker or Fine. To motivate the premise (P2*), what we need is a modal version of truth schema:

(NET): Necessarily, the proposition that P is true iff P .

From **(NET)** and possibly, Socrates does not exist, we can get the proposition that possibly, Socrates does not exist is true. As long as we can infer that the proposition that Socrates does not exist is possibly true, the argument can proceed without equivocation. I believe that **(NET)** is a plausible principle, precisely because of its role in modally valid arguments. The truth preservation between premises and the conclusion in modally valid arguments is often not guaranteed by logical form. For instance, necessarily, if a uniformly coloured surface is red, then it is not green. In order for it to be valid, it is obvious that we need the necessitation version of truth schema. Or to use one of Williamson’s examples, if John is taller than James, then James is not taller than John. Without **(NET)**, there seems to be no way to know whether it is necessarily so.

Now we may turn to the Representation Question. I argue that the question poses no threat to Stalnaker’s account of propositions. First of all, propositions are represented by possible worlds, which are properties instantiated by the world. There might be a question of how the manoeuvres with possible worlds manage to represent propositions, which are

truth-conditions themselves. But this question is similar to the question of how sentences manage to represent propositions, or the question of how we can use different colours to represent different political parties. This is also a question about representation, but it is not the Representation Question. The Representation Question is about how propositions are capable of being true or false. For Stalnaker, propositions are just truth-conditions. This is why sets of propositions, if they are maximal and consistent, can be ways a world might be, namely the possible worlds.

Finally, with respect to the Attitude Question, Stalnaker (1984) defends a two-dimensional, metasemantic answer. Roughly, a semantic theory of a language assigns semantic values to expressions of the language, and a metasemantic theory explains why these expressions have these semantic values. That is, it provides an explanation of why some terms are assigned different objects in different contexts. Now, for the granularity question, we already know that Stalnaker offers a coarse-grained conception of propositions—that is, equivalent propositions are identical. So, the question left is how a coarse-grained conception of propositions can deal with the puzzles around propositional attitudes. Stalnaker holds that propositions are the objects of propositional attitudes, but in attitudes, the way we pick out propositions are relative to contexts. Why? Consider the following example: Peter believes that Hesperus is Mars. It seems obvious that the proposition that Hesperus is Mars is necessarily false, but in a sense, we can imagine cases in which the belief attribution is true, i.e. Peter may demonstrate an intelligible experiment, albeit a false one, for the identity between Hesperus and Mars. For Stalnaker, the example is intelligible, so the task is to explain how it is possible within the possible-world account of propositions. First, it requires to show that in cases where we find such belief attribution intelligible, the proposition denoted by ‘Hesperus is Mars’ is not a necessary false proposition, but a contingent proposition. Secondly, an explanation of how the expression can be used to pick out a contingent propositions is needed. Stalnaker (1981, 1987) introduces the notion of a *propositional concept*:

A propositional concept is a function from possible worlds into propositions. Since, on our working hypothesis, propositions are themselves functions from a domain of possible worlds, a propositional concept may be thought of as a two-dimensional proposition.²⁴

For illustration purpose, let us suppose that there are only two worlds. A propositional concept can be represented as $\langle w_1, \langle w_1, F \rangle \rangle, \langle w_1, \langle w_2, F \rangle \rangle, \langle w_2, \langle w_1, T \rangle \rangle$ and $\langle w_2, \langle w_2, T \rangle \rangle$. The worlds, which are in the argument places of the propositional concept, are regarded as the background information or the context in which the propo-

²⁴Stalnaker (1999), p.120.

sition is assessed. Consider the sentence ‘Hesperus is Mars’. Suppose that in w_1 , the term ‘Hesperus’ rigidly designates Hesperus, and in w_2 , it designates Mars. The sentence ‘Hesperus is Mars’ would express different propositions—a necessarily false one relative to w_1 and a necessarily true one relative to w_2 . However, both interpretations give us necessary propositions, rather than contingent propositions. How should we characterise a contingent proposition? Stalnaker further suggests that the sentence can be regarded as expressing a *diagonal* proposition,²⁵ $\langle w_1, \langle w_1, F \rangle \rangle, \langle w_2, \langle w_2, T \rangle \rangle$, which is a contingent proposition. Yet, this seems incompatible with the view that propositions are sets of worlds, for we have no way of characterising the diagonal proposition in terms of worlds. In Thomson and Byrne (2006), Stalnaker emphasises that the diagonal proposition should not be understood as a distinctive type of proposition, since propositions are just functions from worlds to truth-values. Rather, a diagonal proposition is ‘a distinctive way of representing the relation between an expression and a proposition’.²⁶ Thus, to say that a diagonal proposition is contingent is to say that the way of representing the relation between an expression and a proposition is contingent, depending on the context. Therefore, it is possible to block problematic cases by denying that when an agent believes a proposition, the agent automatically believes other equivalent propositions. I am quite neutral to a metasemantic account of propositional attitudes. Perhaps puzzles and problems raised with propositional attitudes can only be solved in this way. However, I believe that such a solution is also available within an adequate theory of propositions, which I will develop in Chapter 6.

4.4 Concluding Remarks

In this chapter, I have discussed two possible-world accounts of propositions, which offer either a reduction or an explanation of propositions in terms of possible worlds. Lewis’s account reduces propositions in terms of (sets of) possible worlds. It can trivially meet most of the demands required by the Three Questions. For instance, either the unity question and the decomposition question are trivially solved by identifying propositions as sets of worlds, or they are idle with respect to the possible-world accounts because sets do not encounter the unity or the decomposition question. The answer would depend upon what we mean by ‘propositional constituents’. Moreover, the Representation Question and the Attitude Question also have an appealing treatment in Lewis’s account. The problem with the account is that the attitudinal objects are not always propositions, and some of them are properties. This leaves the account of propositions not unified if the

²⁵In Stalnaker (1987), propositional concepts are represented by diagrams.

²⁶Thomson and Byrne (2006), p.288

Three Questions are a desideratum of an adequate theory of propositions. With respect to Stalnaker's account, it suffers a similar problem to Lewis's because Stalnaker offers to solve part of the Attitude Question, relevant to beliefs and belief attributions, via a two-dimensional metasemantic account in which the object of belief are diagonal propositions. As we have seen, diagonal propositions are merely ways of representing the relation between expressions and propositions, and they themselves are not propositions. Apart from that, I argue that if possible worlds and propositions are conceived as contingent abstracta, we cannot retain the necessitation of the truth schema. The schema, however, is useful, and perhaps necessary, under a certain notion of modally valid arguments. By abandoning it, we have thus lost too much.

Chapter 5

New Thinking about Propositions

5.1 Introduction

The possible-world accounts of propositions, discussed in the previous chapter, are able to provide feasible answers to the *quid sit* questions about propositions, although propositions, considered as sets of worlds or functions from worlds to truth-values, do not have propositional structures similar to the structures in structured propositions, and in both accounts, propositions, in general, are not the objects of propositional attitudes. However, we have also seen that the standard Russellian theories of propositions defended by Salmon (1986) and Fine (2007) are untenable, mainly because there is no viable solution to the unity question. Bearing these problems in mind, King (2007, 2014), in the spirit of Russell’s theory of propositions, argues that his theory has a solution to the unity question, and that the granularity of propositions in his theory is *finer* than that of the possible-world accounts and the standard Russellian accounts. Soames (2010b) also proposes a theory of propositions along similar lines, but draws upon a different feature—Russell’s multigrade theory of propositional attitudes. Let us call them Neo-Russellians to distinguish them from the standard Russellian accounts. In the present chapter, I turn to the Neo-Russellian theories of propositions.

However, one might wonder, in what sense are these theories better than the possible-world accounts? First of all, the demand for a fine-grained conception of propositions can be met by Lewis and is dismissed by Stalnaker. As we have seen in Chapter 4, identifying propositions as sets of possible worlds, following Lewis (1986b), does not necessarily commit one to a coarse-grained conception of propositions. In fact, necessary propositions, just as the necessary co-extensive properties, e.g. being triangular and being trilateral, can be represented or modelled in a fine-grained way.¹ Thus, the objection

¹There is an issue here regarding whether Lewis is offering a reduction or a representation of fine-grained propositions. However, I shall set aside the issue for the moment because it would not affect the current

relating to the fineness of grain does not hold, at least not for Lewis. Moreover, the possible-world accounts both offer, if not an explanation, a definition of what it is for a proposition to be true with respect to a world. The Neo-Russellians disagree. They argue that the failure of other theories of propositions is due to the fact that these theories offer no explanation of why propositions are representational. The representational feature of propositions is significant because propositions cannot be truth-bearers without being representational. As I see it, there is little or no difficulty in understanding Lewis's thesis that a proposition P is true at w iff w is a member of P . It seems that the requirement of an explanation of the propositional feature as truth-bearers itself requires an explanation. That is, it remains to be explained why we need to explain the propositional feature as truth-bearers, as opposed to taking it as primitive or self-evident. Be that as it may, the Neo-Russellians argue that none of the theories of propositions on the table is able to address the Representation Question.

The Neo-Russellians have a remarkable approach. For them, the unity question is in fact not a question about the relation between propositions and propositional constituents. As they see it, the question, 'What binds together the propositional constituents to form a proposition?', requires no answer.² Rather, as long as we are able to provide an explanation of how/why propositions have truth-values, the unity question is answered as well. In Chapter 2 (section 2.2 and 2.2.1), I briefly discussed the replacement of the traditional question of the unity of propositions with the Representation Question. For the Neo-Russellians, the underlying idea of the dismissal of the unity question is that we can have a direct answer to what distinguishes a proposition from a mere collection of propositional constituents: Propositions represent the world as being thus-and-so and are capable of being true or false, but a collection of propositional constituents are not. Several issues should be clarified. First, there are many distinct roles which propositions have but are not had by a set or a collection of propositional constituents. Amongst them are being the meanings of sentences, being the truth-bearers, and being the objects in modally valid arguments, to name a few. However, it does not follow that once we have an explanation of how or why propositions have one of these roles, we thereby have an answer to the unity question. To see this, let us consider Frege's Puzzle. Given that 'Hesperus' and 'Phosphorus' have the same reference, the sentences 'Hesperus = Hesperus' and 'Hesperus = Phosphorus' should have the same reference as well, assuming that sentences have reference and they obey the compositionality of reference. Given that they have different cognitive value, there must be something else, other than their reference, which provides the basis for the difference of cognitive value. Frege posits that

point either way.

²Strictly speaking, this is not the original unity question, but it appears to be how Frege and Russell understand the question. For more discussions on Frege's view, see Chapter 6.

it is the thought (Gedanke), or the Fregean proposition as I call it, which plays the role. And yet it can be hardly seen how this is a solution to the unity question. Secondly, consider the Neo-Russellian thesis that propositions represent the world as being thus-and-so, therefore, they are the truth-bearers. Even if we grant that the most distinctive role between propositions and a collection of propositional constituents is that propositions are truth-bearers, it remains dubious whether propositions must represent the world as being thus-and-so in order to be truth-bearers. I believe that no one who works on propositions would dispute that propositions are truth-bearers. This role is considered as fundamental for propositions, perhaps alongside the role that propositions are meanings of sentences. However, it is definitely disputable that for something to be true or false, it must *represent the world as being thus-and-so*, or at least this is what I shall argue later. Yet, it should be noted that even if the way in which the Neo-Russellians understand the unity question is incorrect, it would not be the case that their theories have no value at all. In fact, it is still worthwhile to examine both theories and see if they are better at answering the Three Questions compared to other theories.

In what follows, I begin with a discussion of King's theory of propositions in section 5.2. According to King, propositions are facts of a certain kind, to which truth and falsity can be attributed. What distinguishes propositions-qua-facts and other facts is that every proposition has a propositional relation, which serves as its propositional structure. However, it is not clear what the propositional relations are, apart from King's thesis that sentential relations, provided by the syntax, are part of propositional relations. While propositions so characterised are very fine-grained in a sense, since a difference in sentential relations would also attribute a difference in the propositions expressed, there are some counter-intuitive results. For instance, the proposition that Socrates is wise would be different from the proposition that wisdom is an attribute of Socrates, for they have different sentential relations. Moreover, even the sentence ' $P \wedge Q$ ', where ' P ' and ' Q ' are different sentences, would express a different proposition from the sentence ' $Q \wedge P$ '. The reason is that the propositions expressed by these two sentences have different constituents occupying different terminal nodes in the sentential relation. I do not know whether the result is favourable, but I am inclined to think that it isn't. The fact that different languages can express the same propositions becomes more dubious once the above sentences are taken to express different propositions. Moreover, it provides no new solutions to Frege's puzzle. It is a consequence of the theory that the propositions expressed by 'Hesperus is Hesperus' and 'Hesperus is Phosphorus' are the same. In one sense, it is very fine-grained, but it is not in another. Then in section 5.3, I turn to Soames's theory of propositions where propositions are characterised as cognitive event types. The idea is that propositions are representational, and we can explain the fact

in terms of the representational feature of cognitive event tokens, because the latter are supposed to be more fundamental. Thus, it can be regarded as reversing the order of explanation for those who think that it is the fact that propositions are representational which explains the representational feature of cognitive acts involving propositions. However, it is not clear whether the property of being representational, had by the event types, is inherited from the property of being representational had by the event tokens. It could very well be the case that the property of being representational cannot be *transferred*. I argue that although Soames attempts to answer the challenge, the attempt fails. In section 5.4, I turn to the question of whether the Neo-Russellians have successfully argued that the unity question can be reduced to the Representation Question. Furthermore, I also question whether we have good reason to believe, as they do, that the Representation Question is the most fundamental question for any theory of propositions. Finally, in section 5.5, I shall examine whether the theories of propositions given by King and Soames are able to answer the Three Questions.

5.2 Propositions as Naturalistic Facts

King (2007, 2009, 2014) resurrects the Russellian theories of propositions in a new fashion. Roughly, he holds that propositions are facts, but the proposition Fa as a fact is different from the fact that a possesses F . What does this mean? Take the sentence ‘Socrates is wise’ as an example. The proposition that Socrates is wise is a fact that has the semantic value of ‘Socrates’, the semantic value of ‘being wise’ and a propositional relation as constituents, but the fact that Socrates is wise is merely that Socrates possesses the property of wisdom. The latter fact makes the former fact (proposition) true, and if for some proposition P , there is no such fact of the latter kind, then the proposition-qua-fact still exists, but it will be false. The difference between a proposition-qua-fact and a mere fact is the existence of the propositional relation which relates objects, properties and relations in a proposition-qua-fact but not in a mere fact. The theory construed is called Neo-Russellian in the sense that the constituents are objects and properties. According to King, there are two reasons for favouring his theory; the first is that the account explains what propositions are without committing to mysterious entities, unlike the Fregean, and the second is that the theory is able to explain the representational feature of propositions.

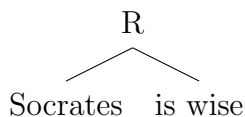
King begins his project with an unusual starting point: syntax. Although Frege has argued that the grammatical distinction of subject and predicate is different from the logical distinction of argument and function, King thinks that the development of linguistic theories should not be ignored. Most notably, work on the semantics of either

natural languages or artificial languages cannot ignore syntax, although whether a given theory of syntax is correct is sometimes unsettled. Despite there being competing theories in linguistics over the question of which syntax is the correct one, King sticks to a level of syntax *LF* which is accepted by most Chomskians. For those who are suspicious of *LF*, it is natural to ask: what if *LF* is shown to be false in the end? Since it is a theory based on empirical evidence, it is possible that further evidence might suggest otherwise. Personally I do not think that King would be bothered by the problem. The choice of *LF* is merely accidental in the sense that *LF* seems to be the most successful candidate of syntactical structures with respect to some considerations. Even if *LF* is replaced by another account one day, it does not automatically invalidate King's theory of propositions, since it is *in principle* adaptable to other candidates of syntactic structures. It is important to keep in mind that for King, a theory of propositions should start from syntax, but which account of syntax should be the correct one is not a philosophical question. We may summarise it as follows:

- (1) Semantics of either natural or artificial languages cannot be given without the syntactic structures.
- (2) Propositions, because they are meanings of sentences, must have input from the syntactic structures.

One notable feature is that the syntactic structure considered by King is not something platonic. Rather, the structure is the product of research by linguists, and in this sense propositions are naturalistic facts, because the propositional relation is founded on the sentential relation *R*, which is the result of empirical investigations conducted by linguists.

Now, in order to understand the nature of the proposition that Socrates is wise, we shall begin with the sentence 'Socrates is wise'. The sentence is represented in *LF* as follows:



The branching lines signify the sentential relation *R* which binds 'Socrates' and 'is wise' to form a sentence. Before we proceed, I would like to point out an interesting question. It is not clear what the sentential relation exactly is. Is it a unigrade and two-place relation? Or is it a multigrade relation? A relation is unigrade just in case it has a definite degree or adicity, and it is multigrade if not.³ Now, to use King's other example,⁴ 'Russell defended Logicism', the sentential relation occurring in the sentence appears to

³See MacBride (2005)

⁴King (2014), p.211

be a two-place relation, holding between ‘Russell’ and ‘defended Logicism’. It does not seem to be so in the more complex sentence ‘Russell defended the claim that arithmetic reduces to logic’. Presumably, the nodes involved would be more complicated than the simple case. Thus, it seems that the relation R is a multigrade relation. However, there are strong arguments against the existence of multigrade relations.⁵ It would be nice to see King responding to the question.

Let us come back to the elaboration of the theory. We should not take the sentential relation *per se* as the propositional relation which relates propositional constituents because the sentence ‘Socrates is wise’ is merely a sentence in English, while the proposition that Socrates is wise can be expressed in different languages. Thus, what we need to form a proposition is the propositional relation, not the sentential relation. King further claims that in virtue of the semantic values of ‘Socrates’, ‘is wise’ and the sentential relation R , we can know that there is a relation between Socrates and being wise. That is, Socrates is the semantic value of an expression of a language that occurs at the terminal node of the left branch of the sentential relation R , and the property of being wise is the semantic value of an expression of a language that occurs at the terminal node of the right branch of the sentential relation R . The core idea is that the sentential or syntactic, relation R not only relates the words, but is also a *part of* the propositional relation R^* which binds together the object Socrates and the property being wise. It is not obvious to me what King has in mind when it is claimed that the sentential relation is part of the propositional relation. King, using the example of the sentence ‘Rebecca swims’ and its proposition correlate, makes the following claim:

On this view, then, the sentential relation R that binds together the words in the LF representation is a component, literally a part, of the relation that binds together Rebecca and the property of swimming in the proposition that Rebecca swims. Let’s call relations ... [which] bind together constituents of propositions *propositional* relations. The relata of propositional relations ... are the *constituents* of the proposition. In general, not only are sentential relations parts of the propositional relations of the propositions expressed by the sentences with those sentential relations, but the sentential relations will provide all the significant structure to the propositional relations, and hence propositions.⁶

The puzzle is how we should understand the claim that the sentential relation R is *literally a part* of the propositional relation that binds together objects and properties. There seems no plausible way to understand it in the mereological sense, but perhaps

⁵For further discussions, see Armstrong (1997).

⁶King (2007), p.32

we can understand it in a way similar to structural universals. Roughly, a typical example of structural universals is the universal *methane*, which is instantiated by methane molecules. It is characterised as: ‘necessarily, something instantiates *methane* if and only if it is divisible into five spatial parts c , h_1 , h_2 , h_3 , h_4 such that c instantiates *carbon*, each of the h s instantiates *hydrogen*, and each of the $c - h$ pairs instantiates *bonded*, and none of the $h - h$ pairs instantiates *bonded*’.⁷ The instantiation of the universal *methane* involves instantiation of the universal *carbon*, the universal *hydrogen*, and the dyadic universal (*covalently*) *bonded*, and it can never be instantiated without instantiating the latter three universals. This is what a structural universal is. Let us put aside the debate of whether there are structural universals.⁸ Suppose that there are. To take propositional relations as structural universals may do, but it requires us to specify the condition under which they are instantiated. Supposedly, we have to know what universal, besides the sentential relation, is also instantiated when a propositional relation is instantiated. To this I have no clue what King would propose. However, if we cannot understand the claim either in the mereological sense or in the sense of structural universals, I fail to see what the propositional relation is, apart from the sentential relation being part of it.

According to King (2007), the proposition that Socrates is wise is the fact consisting of Socrates standing in the following relation to the property of being wise, where this very relation encodes the instantiation function⁹ such that ‘there is a context c and there are lexical items a and b of some language L such that a has as its semantic value in c x and occurs at the left terminal node of the sentential relation R that in L encodes the instantiation function and b occurs at R ’s right terminal node and has as its semantic value in c y ’.¹⁰ This is by far the most complicated construction of propositions we have encountered so far. In the case of singular propositions such as Socrates is wise, it has something like the following logical form, where R is a sentential relation:

$$\exists x \exists p (Rxp \wedge x \text{ refers to the semantic value of } x \text{ and } p \text{ refers to the semantic value of } p \wedge R \text{ encodes ascription (instantiation)}).$$

Now, perhaps there seems to be a difference between sentential relations and propositional relations in the sense that propositional relations *encode* ascription of properties to objects, but sentential relations do not. But, what does it mean to say that R encodes ascription? King (2007) says that if R encodes ascription, it must instruct that the ascription or the instantiation is to be applied to the semantic values of the expressions occurring in the terminal nodes. Yet, we might find ourselves waiting for an answer to

⁷Bigelow and Pargetter (1989), p.1

⁸See Armstrong (1978, 1997), Lewis (1986a), and Bigelow and Pargetter (1989)

⁹Later in King (2014), the instantiation function is replaced with *ascription*.

¹⁰King (2007), p.62

how R instructs us. Now, it could be the case that King is aware of the problem, and thus King (2014) seems to opt for an alternative answer. In King (2014), propositions have truth-conditions because speakers interpret the propositional relations as ascribing properties to objects. But how is this satisfactory? As previously mentioned, obviously there is a difference between propositional relations and sentential relations, but once we come to question how the difference should be cashed out, we are left with the mediocre answer that the sentential relation is part of the propositional relation.

In any case, there are several advantages to King's theory. First, it copes with current (or recent) linguistic considerations. Thus, if one is hostile to the idea that propositions are abstract entities, King's theory of propositions can soothe the hostility. Second, King-style propositions are very fine-grained in a sense, e.g. the propositions expressed by ' $1 = 2$ ' and ' $2 = 1$ ' are distinct, and the propositions expressed by $P \wedge Q$ and $Q \wedge P$ are also distinct. Let us consider the propositions expressed by ' $1 = 2$ ' and ' $2 = 1$ '. Although the constituents in each proposition are the same, they do not have the same position. That is, they occupy different terminal nodes. They may have the same truth-condition, but this is due to the fact that identity is a symmetric relation. The distinction between the propositions expressed by $P \wedge Q$ and $Q \wedge P$ can be drawn in a similar fashion. There is a question whether or not the granularity of propositions captured by the theory is the correct one. But it seems that at least it is able to provide a more fine-grained conception of propositions than other Russellian theories of propositions considered thus far. Thirdly, in relation to the first advantage, it preserves the notion of a propositional structure, and provides a defence of it in terms of the sentential structure. Fourthly, it is able to explain how propositions come to represent the world and thus have truth-values. By interpreting the propositional relation as a sentential relation encoding ascription of properties to individuals, the proposition that Socrates is wise is a proposition-qua-fact which represents the world as being thus-and-so.

Yet, the sentences ' $\text{Hesperus} = \text{Hesperus}$ ' and ' $\text{Hesperus} = \text{Phosphorus}$ ' still express the same proposition since they have the same propositional relation, and the semantic value of the lexical item on both terminal nodes are the same. Of course, there are some theoretical reasons for the result. However, it is a result which I think even some Russellians would deny.¹¹ Distinguishing propositions in a very fine-grained way appears to be useful when propositional attitudes are considered, but it is not the case that the King-style propositions are very fine-grained overall.¹² For instance, they cannot help with cases related to Frege's puzzle. From this perspective, it does not do better

¹¹For example, Fine (2007) argues that the two sentences express different propositions.

¹²I am not saying that Frege's puzzle is all about the granularity of propositions. However, if we can have a fine-grained account of propositions, it seems that Frege's puzzle can also be answered. Fine (2007) gives a good demonstration of how this is done.

than Fine's theory of propositions, which is also Russellian. Besides, given that the propositions considered by King are constituted by the propositional relations and the propositional constituents, we have seen earlier that an account, according to which propositions are constructed from their constituents and structures, is subject to the unity question. How would King address the problem? King appears to dodge the question with the following remarks:

My excuse is that I think that anyone who believes that things stand in relations and possess properties must face the question, if only to dismiss it, of what holds an object and a property together when the object possesses the property or what holds an n -place relation and n objects together when the objects are so related, etc. So I claim to have reduced the mystery of what holds propositions together to a mystery that all of us who think that objects possess properties and stand in relations need to face in any case. Reducing two mysteries to one seems like progress to me.¹³

I disagree. Mysteries are mysteries and a theory with less mysteries is no better than a theory with more mysteries in the sense that both theories lack a satisfactory explanation of them. We can, however, put the issue aside because there seems to be no good philosophical reason for favouring my contention rather than King's.

Let us now turn to the claim that propositions are facts, but we have to distinguish *propositions-qua-facts* and *facts*. Facts are what make propositions-qua-facts true. Even if King is somehow forgiven for not specifying the details of the truthmaking, I argue that the theory does not provide us with enough insight on the distinction. Given that some propositions are true and some are false, it follows that some facts are true and others are false. It is already difficult to understand what false facts are, and yet there is a greater difficulty: presumably, a King-style proposition is true in virtue of some fact which makes it true. For instance, the proposition that Socrates is wise is true in virtue of the fact that Socrates is wise. The facts which make proposition true, call them 'truthmakers', are void of truth-value, because it would be a categorical mistake to say that the fact that Socrates is wise is true or false. Thus, the upshot is that some facts are true, some are false, and others are void of truth-value, which is a mysterious claim. It is possible that King can make the following reply: we do have a characterisation of the facts which are capable of being true or false from other facts. The facts in which a propositional relation binding the propositional constituents are truth-bearer facts, and others in which only the instantiation relation binding the objects and the properties are not truth-bearer facts. There are two possible responses to his reply: first, it seems to me

¹³King (2014), p.50-1

that we can imagine a case where propositional constituents and propositional relations are present, and yet they are facts, but not propositions-qua-facts. Second, while we have a rather clear notion of what facts are, i.e. an object instantiates a property or an object possessing a property, I find it difficult to extend the understanding to propositions. In particular, when we consider that propositions are truth-bearers (which King also holds), there is somehow a distortion of our understanding on facts.

5.3 Propositions as Cognitive Event Types

Soames (2010b) argues that no matter what conception of structure we have, there is still no informative distinction between a proposition and a mere collection of constituents¹⁴. However, once we recognise that propositions are capable of being true or false because they represent the world as being thus-and-so, what we are looking at is merely an explanation of why propositions are representational. In this aspect, this is similar to King's argument. The difference is that whereas King explains the representational feature in terms of agents' interpreting the propositional relation as ascribing properties to objects, Soames does so with agents' predicating properties of objects.

How does Soames defend his thesis? First, it is argued that, along the lines discussed above, propositions are representational. Secondly, when an agent sees or thinks about something in a certain way, the agent also represents the thing as being in that way. Soames accepts that, presumably, one of them is fundamental and the representational feature of the other inherits from it. This is not an uncontroversial claim, but it is not pursued here. I shall only point out that it is possible that their capabilities of being representational have independent sources, or that they are representational in virtue of some other thing. Of course, since Soames is defending a theory in which propositions are cognitive event types, propositions are the kind of entities which are not intrinsically representational. That is, they inherit the ability to represent the world as being thus-and-so in virtue of the representational ability of cognitive activities. In general, the theory developed has the following two features:

1. The perceptual and cognitive activity of agents is the conceptual basis of all representation.
2. Propositions are representational in virtue of the relations they bear to this representational activity.¹⁵

¹⁴Soames uses 'a list' rather than 'a collection', but I don't think the difference matters here

¹⁵Soames (2014a), p.96

Soames is not alone in thinking that *predication* can explain why propositions are representational. We also find similar ideas in Hanks (2015):

It is because we perform these acts of predication that our judgements and assertions have truth-conditions. Propositions are types of these actions, and they inherit their truth-conditions from them.¹⁶

One might wonder whether there is any substantial difference between the two theories, apart from terminology? The difference is quite subtle. It has to do with the way they see what a predication is. Soames seems to hold that predication is something neutral in the sense that it need not be judgemental or assertoric, but this is not so for Hanks. For Soames, the neutrality of predication seems necessary because we can judge, believe, doubt or assert the same proposition. What varies amongst these attitudes is the associated attitude. However, Hanks argues that predication must be something agents really do, namely the attitude is part of predication.¹⁷

Soames regards an agent predicating properties of objects as a cognitive event, and a proposition such as *o* is red 'is simply the minimal event type in which an arbitrary agent predicates *being red* of *o*'.¹⁸ Thus we arrive at the thesis that propositions are cognitive event types. So to speak, the theory is also reductionist. It attempts to reduce the propositional feature of being representational to the representational feature of cognitive events. This also reverses the order of explanation. Originally, it is taken to be the case that because propositions are representational, our cognitive acts involving propositions are representational. This may well capture our intuition. Some cognitive events, e.g. John's believing that Socrates is wise or Tom's denying that Socrates is wise, share something in common. Although the cognitive attitudes are different—in the former case belief and in the latter case denial—the content of the cognitive attitudes is the same: the proposition that Socrates is wise. Soames claims that in both cases, the agent in question predicates the property wisdom to the individual Socrates. If we view events as concrete tokens occurring at a specific time and place, propositions can be regarded as types of events in which an arbitrary agent predicates the property of the individual. The picture offers an explanation of why different cognitive events can have the same content using the type-token analogy. Moreover, Soames thinks that if these cognitive events are representational in virtue of propositions' being representational, we still lack an explanation of why propositions are representational. This is also the point where Soames argues against the Fregean and the Russellian theories of propositions because it

¹⁶Hanks (2015), p.64

¹⁷For further discussion of the difference, see Hanks (2015), p.33-41.

¹⁸Soames (2014a), p.96

appears that in both theories, propositions are intrinsically representational without an explanation.¹⁹

The theory is able to provide a unifying account of propositions and objects of propositional attitudes, since propositions are just types of cognitive event tokens, which include propositional attitudes. But now I would like to consider its ability to account for alethic modalities. It is clear that propositions are bearers of alethic modalities, so some propositions are possibly true. Presumably, the proposition that there are no beings who are able to perform cognitive activities is one of them. Although there can be types without tokens, depending on how one understand types, it does not appear that Soames is following the path. Soames (2014a) only says that if an event type *E* has instances that exist, then *E* exist. It is not clear whether the type *E* can exist without having instances. However, suppose, for reductio, that there can be types without tokens. The cognitive event type is representational, following the theory, but it does not inherit its representational feature from concrete event tokens. The consequence is in conflict with the setting of the theory, which gives us some reason to think that there could be no event types without tokens. Now, if it is possible that there are no such beings who can perform cognitive acts and propositions are cognitive event types, it is possible that there would be no propositions. The result violates intuition. I tend to think that mathematical propositions are necessarily true or necessarily false propositions, regardless whether there are any beings at all. But if all propositions thus construed are only contingent, depending on cognitive event tokens, Soames may need to accept that mathematical propositions are necessarily true only when they are entertained by agents. It may fit a certain view on mathematics, namely constructivism or intuitionism. But I doubt whether Soames has any tendency towards it.

In any case, for Soames, if we start from event tokens and we can explain why there are representational, then we can also explain why propositions as event types are representational. There is an immediate problem here: Not every property had by tokens will be had by the respective types.²⁰ For instance, a token of the note of 20 pounds can be traded, but its type cannot be traded. Another related worry is that even if the first problem is solved, it could very well be the case that some of the properties had by the token are inherited from the properties had by the type, and *vice versa*. Soames responds to the problem in two stages: first, it is not the case that the type is representational in virtue of the token's being representational. Rather, it is the act of predication which an arbitrary agent does in the event type which is representational. A token of this event type, supposedly, involves an act of predication and therefore is also representational.

¹⁹In section 5.4, I argue that the objection fails.

²⁰This is the similar point raised in Speaks (2014), p.164-5

Secondly, the act of predication is not something abstract. Otherwise, Soames could not explain the representational feature better than the theories which he opposes. Thus, the act of predication receives its ability to represent something as being thus-and-so because the agent does. However, it seems that the event tokens as well as the event types (propositions) are representational in virtue of the agent who performs the act of predication. For the moment, let us set aside the question whether the defence is valid. Even if it is valid, it is not clear why we need to commit to the thesis that propositions are event types. Recall Soames's motivation for giving a new theory of propositions is to explain why propositions are representational. The original solution is that it is because these cognitive event tokens are representational, and thus the event types are representational. But now, both the event tokens and the event types are representational in virtue of what agents do. It somehow does not fit with the original intent. Soames seems to recognise the problem when he says,

These cognitive products are what philosophers call “propositions,” and which, up to now, I have identified with cognitive event types, but which I now think might better be identified with the cognitive acts themselves.²¹

The vacillation might somehow be justified, but it makes the theory itself unsatisfactory. The final objection to Soames's theory is that propositions are either true or false. But predication, if it does not involve assertion or judgement, is unlikely to be correct or incorrect. Consider the following scenario: I seem to see a red mug. According to Soames, the cognitive event is representational because I perform an act of predication, namely predicating the property redness to the mug. Suppose that the mug is in fact not red. It follows that the cognitive event type is false, and thus there seems to be something mistaken in my act of predication. But how could I make a mistake if the act of predication is performed when I predicate the property to the object? An intuitive answer is that what it represents is not the case. To this much we can agree. Yet, for Soames, when performing an act of predication, I even do not have to judge or believe that the mug is red. This is essential for his theory of propositions to explain what is common between different attitudes concerning the same proposition. So it seems that the act of predication cannot be mistaken, which conflicts with the foregoing analysis.

5.4 Representation and Unity Revisited

In Chapter 2 (section 2.2.1), three objections were raised against the thesis that the unity question is no longer a threat to theories of propositions once we have answered the

²¹Soames (2014a), p.235

Representation Question, i.e. how or why propositions are capable of being true or false. The first objection is that these two questions concern distinct features of propositions, such that some theories, although immune to the unity question, still have to address the Representation Question to a certain extent. The second objection is that given certain assumptions, it is the Representation Question which strikes us as a pseudo-question, and the unity question still awaits a solution. The third objection is that the unity question can be derived from Bradley's regress. Here I shall consider and evaluate some (possible) responses made by King and Soames.

King (2009) argues that there is no harm in taking the Representation Question to be the unity question, provided that the unity question is about what distinguishes a proposition from a mere collection of its constituents. The idea, as I see it, is that propositions are capable of being true or false, but a mere collection of its constituents aren't. Thus, if we have an explanation of the feature, we can thereby solve the unity question. King says,

[P]resumably part of the difference between a proposition and a list is that a proposition has truth-conditions. In so far as the question of how a proposition differs from a mere list can plausibly be taken as a question about the unity of the proposition... [the Representation Question] can plausibly be so taken. For in asking how or why a proposition has truth-conditions we are asking how or why (at least in part) it differs from a list.²²

The response can be regarded as addressing the first objection, that these two questions concerns different features of propositions. But the response is hardly sound. There are numerous ways a proposition can differ from a mere collection of its constituents. For instance, the proposition can be the object of knowledge, but a mere collection cannot, or propositions can be used to make inferences, while a collection of its constituents cannot. We may also say that propositions have a certain kind of *aboutness*, while a mere collection doesn't. Alternatively, a maximal consistent set of propositions can be used to represent a possible world, but a maximal collection of constituents, regardless what it might mean, cannot. Corresponding to each difference, we may have a specific explanation of why it is so, but to claim that an explanation of the difference would answer at least a part of the unity question seems wrong. If the unity question can be solved in this fashion, it would be a boring question. In order to show that the approach is sensible, an additional thesis should be established: the most prominent or significant difference between a proposition and a collection of the constituents is that a proposition is capable of being true or false, but a collection is not capable of doing so. I do not see how to show that this is the most

²²King (2009), p.3

significant difference. Perhaps we could retreat to the claim that being a truth-bearer is a feature which distinguishes propositions and collections of their constituents, and thus an explanation of this very feature would provide some clue towards solving the unity question. Then I have no objection to this claim, but it says nothing substantial.

A response to the second objection is to show the significance of the Representation Question. It is not hard to see why King and Soames think that the question is significant. For instance, Soames shows a strong dismissal to the unity question in the following:

[U]nlike the Frege-Russell account, the cognitive-realist conception doesn't face the metaphysical pseudo-problem of "the unity of the proposition," which—though traditionally described as that of explaining how the constituents of propositions "hold together"—serves only to mask the real problem of explaining how propositions can be representational, and so have truth-conditions.²³

The real problem, according to Soames, is to explain how propositions can be representational. A similar thought is shared by King:

... I just can't see how propositions or anything else could represent the world as being a certain way by their very natures and independently of minds and languages. ... [I]t seems to me likely that any theory of propositions that holds that propositions represent things being a certain way by their very natures and independently of minds and languages will be unable to give any explanation of how this representation occurs and so will have to take it as primitive that propositions do this, but to my mind taking any kind of representation as primitive is a paradigm example of misplacing one's primitives.²⁴

It may not be clear, from the passages quoted, how they establish the significance of the Representation Question. However, a defence may run as follows: propositions are *inherently* representational, but they are not *primitively* representational. And it is precisely because propositions are inherently representational, that we can have an explanation of how they are the truth-bearers. This also provides a distinction between propositions and mere collections of propositional constituents. Since propositions are inherently representational but not primitively representational, they must inherit their capability of representation from other things, which are supposed to be primitively or more fundamentally representational. This final step, concerning how propositions gain their capability of representation, is where King and Soames depart from each other, but the above defence is more or less shared by them.

²³Soames (2010b), p.106-7

²⁴King (2009), p.260

Now I shall pick up a point made previously. In section 2.2.1, I argued that in order for Soames's theory to be a good theory, the following two theses should be established. First, propositions are inherently representational and this cannot be so of abstract entities which exist independently of mind and language. Secondly, propositions are capable of being true or false, i.e. propositions are the truth-bearers, in virtue of their being representational. In the next section, I shall discuss whether we have reason to believe these theses. I argue that there is one thing which is overlooked by both theories. The claim that propositions are the truth-bearers is not equivalent to the claim that propositions are (inherently) representational. Propositions need not be representational in order to be truth-bearers. In fact, as I discussed in Chapter 4 (section 4.3), Stalnaker defends the thesis that propositions are not representational, in the sense that properties themselves, when instantiated, are not representational, although properties can be *used* to represent other things. For instance, colours can be used to represent nations or political parties, but the property blue does not represent the blue mug on the table as being blue. What is more, something's being representational does not guarantee that it is a truth-bearer. We can use the number 007 to represent James Bond, or we can use it to represent some proposition, but the number itself is not a truth-bearer.

Now, followers of King and Soames may contest that what I am trying to do is to break the link between the feature of being truth-bearers and the feature of being inherently representational. They may claim that I have not shown that the Representational Question has no significance. Perhaps they are right. The Representation Question does have some significance, but it is not a significance seen by most, let alone all, theories of propositions. If we see the connection between something's being representational and its being the truth-bearer as King and Soames do, then propositions in most theories are not representational and thus are not truth-bearers. Yet, I still fail to see why the sheer fact that propositions are not representational prevents propositions from being truth-bearers. In any case, what we can confidently say is that if someone uses the term 'representation' as they do, such that being inherently representational is a sufficient and necessary condition for being truth-bearers, neither the Fregean/Russellian theories of propositions nor the possible-world account of propositions could be a viable theory of propositions.

Finally, what could be a possible response to the third objection? Recall that Bradley's regress, when applied to the constitution of facts, induces a regress such that there is no suitable relation which binds the constituents of facts together. Consider the fact that Fa . The mere existence of a and F is not sufficient for the fact to exist. Consider a world where only two facts Fb and Ga exist. We may conclude that a and F exist, but we are not entitled to say that the fact that Fa exists. Postulating the existence of a certain

relation R , such as instantiation or exemplification, holding them together does not help. In the actual world, Socrates, the property foolishness and the relation instantiation exists, and yet Socrates is not foolish.²⁵ Similar reasoning can be drawn with respect to propositions. My solution to the unity question (in Chapter 6), successful or not, does provide a way of dealing with Bradley's regress applied to propositions. I argue that propositions come first in the sense that they are more fundamental than propositional constituents. In many aspects, this resembles the solution to Bradley's regress proposed by Armstrong (1989) and Hossack (2007),²⁶ but it is criticised in MacBride (2016), who claims that the solution already assumes that Bradley's regress has been disarmed. I have no definite verdict on the matter, and yet at least it demonstrates the difficulty of the problem. Now we have seen the connection between Bradley's regress and the unity question, and a solution to the latter ought to provide at least some general guidelines for a solution to Bradley's regress. Neither King nor Soames has a feasible answer. Therefore, to think that the unity question is a pseudo-question, or to think that the unity question can be solved once we solve the Representation Question, is not feasible. It should be noted that this does not preclude that the Representation Question is itself a genuine question. Quite the contrary, it is definitely genuine for those who attempt to reduce propositions and claim that propositions must represent the world as being thus-and-so in order to be the truth-bearers. Given that King and Soames fall into this characterisation, the Representation Question has to be dealt with, but for others who do not share the sympathy, there seems to be no such question. I hope this also justifies why I have spilled little ink when I discuss the Representation Question in the context of other theories of propositions.

5.5 The New Thinking and the Three Questions

I now turn to how both theories deal with the Three Questions. With respect to the unity question, we may grant that what has been regarded as a mysterious relation is naturalised in King's account, since the propositional relation has the sentential relation as a component, which goes along with contemporary linguistic inquiries. To some extent, King's proposal is attractive in the way that it fits into the naturalistic framework. However, it is hard to believe that the proposal is able to accommodate the unity question. Positing a propositional relation to relate the propositional constituents does not help solve the matter, as I see it. The mere existence of the propositional relation and propositional constituents do not themselves constitute a proposition. Moreover, per-

²⁵The example is from Hossack (2007).

²⁶See Armstrong (1989), p.109-10 and Hossack (2007), p.41-5

haps we can say that sentences do not have a unity question if by ‘sentences’ we mean the linguistic conception of sentences. (What else could it mean?) The unity question might very well be a pseudo-question for scholars in linguistics in the same way as the Special Composition Question might not trouble researchers in physics.²⁷ However, since we are doing philosophy, both questions deserve more attention. Based on the discussion in section 5.4, neither King nor Soames makes any attempt to solve the unity question characterised above. This, of course, does not mean that their theories cannot offer a solution. Although I argue that King’s theory of propositions cannot solve the unity question, the matter may be different for Soames. Recall that for Soames, propositions are cognitive event types. Presumably, event types are not subject to the unity question, or so it seems to me. Moreover, it is not clear what ‘constitutes’ types, if anything. As it were, it could be the case that Soames is able to avoid the unity question in the same way that the proponents of the possible-world accounts of propositions do.

Let us now turn to the decomposition question. The Neo-Russellians have a direct answer to the decomposition question, just like the Russellians. As I pointed out in Chapter 2, it is unity which is supposed to be problematic for the Russellians, while the decomposition question receives a direct answer. For King, it is the propositional relation which tells us how to decompose propositions. Although propositional relations are not sentential relations *per se*, sentential relations provide the guide for what a proposition is like. Thus, how we should decompose a proposition has a definite answer, supported by syntax. Given that a sentence could not have multiple sentential relations which are all correct, the result is incompatible with some important Fregean theses, which I shall discuss in Chapter 6. For Soames, the matter is much more complicated. Do events have constituents? Even if they do, do event types have constituents? The way Soames sees events and event types seems to involve agents, acts of predication, properties and objects. Yet, if this is all there is to an event, the unity question would persist. This time it would not be a metaphysical pseudo-question about propositions, but a real metaphysical question about events. Ignorance may play a part, but I have no idea whether the unity question is ever a problem for events or event types. From the above, I do not think Soames would have too much difficulty with the decomposition question.

However, both theories seem to imply that propositions are contingent beings. Why? For King’s theory of propositions, it is obvious that sentences and thus sentential relations are contingent. King is aware of the fact that the consequence is in conflict with Plantinga’s anti-existentialism argument, but no new solution has been proposed other than Fine’s distinction between the inner notion of truth and the outer notion of truth.²⁸

²⁷The Special Composition Question (SCQ), ‘Under what conditions do *xs* compose a *y*?’ is a question formulated by van Inwagen (1995).

²⁸See King (2007), p.80-95.

I have argued that the distinction, even if sound, cannot defeat Plantinga's argument. The same holds for Soames. Soames says that in order for a proposition to exist, it is not required that the act of predication actually occurs. Suppose that Fa is a proposition which no one has entertained. That is, it is a cognitive event type without an instance. As long as some agent has predicated F to some other objects, and some agent, who does not have to be the same agent, has predicated some other property to a , then there exists the proposition Fa . Now, the explanation seems to imply that once we have the constituents, we have the proposition. The result itself may be problematic enough, on pain of the unity question. But the real problem for the theory is that there are properties and objects about which no one has ever performed any predication. A way out is to say that if there is a possibility of predication, then the respective proposition exists. This would not work, for the possibility of predication is not itself necessarily possible. So, it is still possible that Socrates does not exist and the proposition does not exist, contrary to Plantinga's argument. As I see it, the Neo-Russellians, along with the Russellians excluding Williamson, have to reject the necessitation of the truth-schema.

Both theories, needless to say, are able to answer the Representation Question in a satisfactory way. This is partly because the question is 'invented' by the theories. I have argued against the thesis that there is a solution to the unity question once we have a solution to the Representation Question. In section 5.4, I argued that these are independent questions. Moreover, in section 2.2.1, it is argued that in order for propositions to be truth-bearers, they need not be representational. In fact, there seems to be no restriction for anything to be a truth-bearer, as long as it can satisfy some properties, e.g. it fits with the truth schema. Even if there really are some basic or fundamental properties of truth, which a truth-bearer must satisfy, being representational is definitely not amongst them. The result is argued in Chapter 4, when I discuss the possible-world account of propositions. It should be stressed that it is not the present goal to argue that neither propositions as naturalistic facts nor propositions as cognitive event types can be truth-bearers. In fact, I am sympathetic to the approach in the sense that the Representational Question is significant for those who think that for something to be a truth-bearer, it has to be representational. But it is not significant if one thinks otherwise. Moreover, even if propositions are inherently representational, it does not mean that this necessarily requires an explanation. Merricks (2015) defends the view that propositions are inherently representational, and they are primitively so.²⁹ Thus, Merricks shares the thought with King and Soames that propositions are inherently representational and that propositions are truth-bearers because they are representational, and yet he argues that this feature is primitive and cannot be explained.

²⁹See Merricks (2015), Chapter 6, for the defence of the theory.

So to speak, there are two conditions for the Representation Question to be a genuine question: first, the theory of propositions in question is reductionist in character. That is, propositions are reduced to other, supposedly, well-founded entities. Second, propositions are representational, and they are truth-bearers in virtue of being representational. This is the line of thought defended by King and Soames. Having laid out the two conditions, we are in a better position to see that Lewis's account of propositions only satisfies the first condition, and Merricks's theory of propositions only satisfies the second. Therefore, neither Lewis nor Merricks is forced to answer the Representation Question.

Finally, on the Attitude Question, the Neo-Russellians do have a better answer than the Russellians. King's theory of propositions is very fine-grained in a sense. Propositions are individuated not only by objects, properties and relations, but also by propositional relations. Although, with respect to Frege's puzzle, the theory has the same predicament as the Russellians, King may use it to turn the table on the Fregeans. It can be argued that even though propositions are so fine-grained, it still cannot address the puzzle in the Fregean manner. That is, we do not have enough reason to think that the sentences 'Hesperus is Hesperus' and 'Hesperus is Phosphorus' express different propositions. After all, if a theory of propositions is fine-grained enough and it cannot deal with certain examples, it might very well be the case that these examples are wrong or mistaken. I am not sympathetic to the theory because I think that Frege's puzzle is a genuine question and that the manner in which King individuates propositions is too fine-grained. It should be noted that this is not to say that Frege's puzzle is merely a puzzle about the fine-grainedness of propositions. However, if a theory of propositions is fine-grained enough, it should be able to deal with Frege's puzzle, at least to some extent.

This now leaves Soames's theory to be examined. The thesis that propositions are cognitive event types, as I see it, is capable of dealing with problems about propositional attitudes in an intuitive way. Each attitude an agent has to a proposition can be regarded as a cognitive event token, namely the agent predicating properties to objects in a certain manner. However, there is indeed a problem concerning beliefs about non-existent objects, for one cannot predicate a property of a non-existent object. Soames tries to answer the challenge with the following remark:

When a proposition is the event type of predicating a property of an object *o*, *o* may be a constituent of the proposition—in the sense that the proposition is defined in terms of *o*—without *o*'s existence being necessary for the existence of the proposition.³⁰

Soames says that since we can refer to Socrates, even though he no longer exists, a

³⁰Soames (2014a), p.102

cognitive event token, which belongs to a cognitive event type in which one refers to Socrates, exists as well. Now, one can also predicate non-existence of Socrates and get the proposition that Socrates does not exist. Although the proposal seems to avoid certain difficulties other Russellian theories of propositions may have, Soames admits that it cannot be extended to deal with problems stemmed from empty names. Let us consider one typical example, ‘Vulcan is a planet’. Soames holds that the sentence does not express any proposition, and the reason is that ‘Vulcan’ fails to refer. However, it seems intuitively true to say there is no substantial difference in the following cases:

(27) John believes that Vulcan is a planet

(28) John believes that Venus is a planet.

Soames needs to convince us why (27) does not express any proposition or only expresses incomplete proposition, but (28) expresses a proposition. I think that this is one of the greatest challenges to those who take propositions as cognitive event types.

Chapter 6

Towards A Fregean Theory of Propositions

6.1 An Outline of the Theory

The theories of propositions which we have seen so far are mostly reductionist in character.¹ According to the two possible-world accounts of propositions discussed in Chapter 4, propositions are reduced to sets of worlds or are represented as functions from worlds to truth-values. As for the Neo-Russellian theories of propositions discussed in Chapter 5, propositions are reduced to naturalistic facts or cognitive event types. It is rare for philosophers to consider the non-reductionist or the *sui generis* conception of propositions as a viable option nowadays. (The last few include perhaps Plantinga (1983), but definitely Bealer (1998), and Merricks (2015)). In other words, it is almost unanimously held that propositions can be reduced to other entities, and occasionally one might even see the more radical view that propositions are redundant since positing propositions does not foster our understanding of semantic knowledge or of communication. However, none of the theories we have considered so far is able to provide a uniform answer to the Three Questions. Perhaps the demand is too high, as Lewis (1986b) once said: ‘The conception we associate with the word “proposition” may be something of a jumble of conflicting *desiderata*’.² Given that the reductive theories of propositions considered so far fail to do the job, it seems reasonable to give up some of the Three Questions or the Minimal Roles. However, I think that it is still worth exploring the non-reductionist alternative. The following is a defence of a theory of propositions in which propositions

¹Even though it might be debatable whether the Russellian theories of propositions, discussed in Chapter 3, are reductionist, there is little room for doubt when we consider the possible-world accounts of propositions or the Neo-Russellian theories of propositions.

²Lewis (1986b), p.54

are *sui generis* entities. The theory of propositions will be Fregean in character, in the sense that propositions can be *multiply analysed*.

What does it mean to say that propositions can be multiply analysed? Frege's answer is that a Fregean proposition can be analysed (or decomposed) in many ways such that there is no objective pre-eminence between distinct analyses.³ Presumably, we can arrive at a set of propositional constituents and a structure when a particular analysis is performed upon a given proposition. Moreover, it would be idle to say what the propositional constituents are without specifying the analysis. Frege says,

The thought itself does not yet determine what is to be regarded as the subject. If we say 'the subject of this judgment', we do not designate anything definite unless at the same time we indicate a definite kind of analysis; as a rule, we do this in connexion with a definite wording.⁴

This suggests that there is no genuine propositional structure, if what we mean by 'genuine structure' is a unique and absolute structure. If there were such a structure for Fregean propositions, for each proposition the structure would determine what is to be regarded as the subject, whereas the subject can be understood as a definite propositional constituent.

Although it is more or less a consensus that Fregean propositions are similar to Russellian propositions in the sense that they are structured, I argue that there is some reason to be sceptical about whether we should conceive Fregean propositional structures *in the same way* as Russellian propositional structures. Presumably, for each Russellian proposition, there is a unique set of propositional constituents and structure. The uniqueness of structure is significant because it seems to be the only way to tell the difference between the proposition that John loves Mary and the proposition that Mary loves John. Moreover, it seems natural to accept that if a proposition is constituted by its propositional constituents and the structure, the identification of propositions ought to depend on the propositional constituents and the structure. A proper characterisation of ontological dependence is beyond the scope of the thesis, but it seems plausible to say that the sameness of propositional constituents and of structures are jointly sufficient and necessary for the sameness of propositions, in the case of Russellian propositions. That is, two propositions are identical iff they have the same constituents and the same structure. However, given that a Fregean proposition is capable of being multiply analysed, and that its propositional constituents and structure are the results of one analysis, it is possible that different sets of propositional constituents and different structures may turn

³The terms 'analysis' and 'decomposition' are regarded as more or less substitutable, but keep in mind that Dummett argues that there is a difference between decomposition and analysis. See section 6.3.2.

⁴Frege (1960), p.49

out to be the analysans of the same proposition. This implies that differences in constituents and structures are not sufficient for determining whether there are two different propositions.

My proposal is to argue for a conception of propositions in which propositions do not have a unique and absolute structure. This confirms that Fregean propositional structure is different from Russellian propositional structure. Are Fregean propositions still structured? I shall argue that we may impose a structure, in some pleonastic sense, when needed, e.g. for making inferences and entertaining propositions. The thesis may be somewhat surprising and provocative. Isn't it the case that a Fregean theory of propositions should be committed to the thesis that propositions are *structured* in the same way as Russellian propositions? A disclaimer for the departure from the ordinary or the standard understanding of Frege's theory is that I have no intention to defend a definite exegesis of Frege's theory of propositions, although the theory defended resembles Frege's theory in many aspects. I hope to excuse myself from the challenge in the same way as the Russellians or the Neo-Russellians, for whom the exegetical problem does not arise.

Apart from the multiple analysability of propositions, I am also sympathetic to serious actualism, the doctrine that 'necessarily, nothing has any properties in any world in which it does not exist'.⁵ Presumably, when we say that propositions are truth-bearers, in a sense we not only say that propositions are true or false, but also imply that truth and falsity, just like redness or roundness, are properties. Although what is instantiated in the former group is usually different from what is instantiated in the latter group, the way in which truth, or falsity, is attributed to a given proposition is just like the way in which redness is attributed to a particular object, as I see it. Combining serious actualism with the thesis that truth and falsity are properties, it follows that if a proposition is true, or false, in a given world, the proposition exists in that world as well. Possible worlds, no matter whether they fall under the concretist, the abstractionist or the combinatorialist conception, are *maximal* in the sense that for any world w , and any proposition P , either P or $\neg P$ is true with respect to the world w .⁶ Thus, it follows that propositions exist necessarily. However, two things need to be clarified here. Firstly, the sense of 'maximal' employed here is not uncontentious. For instance, Stalnaker (2012) argues that possible worlds (world-states) are maximal in the sense that for any proposition P , a given world w will *entail* P or $\neg P$. This may sound confusing at first glance. Isn't it the case that if w entails P , then P is true in w ? Well, not exactly so for Stalnaker (2012). The confusion may persist until the distinction between the inner and outer notion of

⁵Plantinga (1983), p.4

⁶Here I omit cases like truth-value gaps and gluts, but the account can certainly be extended to cover the cases if one has an explanation about how truth-value gaps and gluts are also properties of propositions.

truth is made. Therefore, for Stalnaker, if w entails P , it does not follow that P is *true in* that world, although it does follow that P is *true at* that world. I have argued in Chapter 3 that the distinction is untenable, and even if it were tenable, it would not have answered Plantinga's argument. Secondly, the claim that truth and falsity are properties is incompatible with some of Frege's theses, in particular, the thesis that the True and the False are objects. Frege argues that since sentences are of the same logical type as complex names, what they refer to, namely the True and the False, are objects. I shall discuss how seriously we should understand the claim that sentences are of the same logical type as complex names and related problems in section 6.2.

The theory of propositions defended in this chapter departs from Frege's theory of propositions in two major ways. (1) Propositions do not have a unique and absolute set of constituents and structures.⁷ (2) Truth and falsity are properties of propositions. My justification for the first departure is that it seems to be the only viable approach to solving the Three Questions within a theory of propositions. We have seen that the Russellians and the Neo-Russellians cannot properly deal with the unity question. Although the same question does not bother the possible-world account of propositions, Lewis proposes to solve the Attitude Question in terms of properties, while Stalnaker goes for the metasemantic solution. These accounts do not seek the answer to the Attitude Question within a theory of propositions. A discussion of how the defended theory is able to deal with the Three Questions is carried out in section 6.5. Here are some reasons for the second departure: first, the Fregean thesis that truth and falsity are objects arises from the assimilation of sentences to complex names. Names are complete expressions and thus refer to objects. Yet, the account has some unfavourable consequences. One of them is that all true sentences refer to the same object. Intuitively, given 'Socrates' and 'Plato' refer to different objects, and 'is wise' and 'is a philosopher' stands for different concepts, 'Socrates is wise' and 'Plato is a philosopher' would also refer to different objects. Things aren't so if sentences refer to truth-values. Of course, we can explain away the problem by saying that the reference of a sentence is regarded as the value of a function. That is, we see concepts as functions and objects as arguments. Even though functions and arguments may be different, the value could still be the same, e.g. $1 + 1$ and $2 - 1$ has the same value. However, the case is not so with respect to propositions. If we conceive propositions as the values of propositional functions, it is likely that we have to give up the thesis that propositional constituents are parts of propositions. Secondly, there are some ontological difficulties in seeing truth and falsity as objects. Are they concrete or abstract? To which ontological category do they belong? Are there any other objects in

⁷Given the above characterisation, this appears to be Frege's view. However, it departs from Dummett's interpretation, which I take to be the dominant view on Frege. I shall discuss Dummett's interpretation in section 6.3.2.

the same category as truth and falsity? These are perplexing issues but have no clear verdict in Frege's theory. In any case, there seems to be some improvement once truth and falsity are taken as properties rather than objects.

In what follows, I begin with a characterisation of Frege's theory of propositions and discuss a problem raised by Ramsey (1925) in section 6.2. Then, in section 6.3, I consider the response made by Geach (1975), and the solution proposed by Dummett (1981), which is based on an investigation of the quantifiers expounded by Dummett (1973). I argue that neither Geach nor Dummett has offered a satisfactory solution and I propose an alternative solution to the problem. A theory of propositions is developed in virtue of the solution provided in section 6.4. In order to put flesh on the bones, I shall consider how the theory deals with the Three Questions in section 6.5. In comparison with other theories, the Fregean theory of propositions defended is able to deal with the Three Questions within the theory. Thus, the *quid sit* question concerning propositions does have a uniform answer. Thus, I conclude that the proposed Fregean theory of propositions is a plausible theory.

6.2 Fregean Propositions

Since the theory of Fregean propositions defended later is similar to Frege's conception of propositions in some ways, we need an elaboration of the latter in order to see the similarities and the differences of the former. According to Frege, propositions are not subjective, unlike ideas, since communication would be impossible if propositions were not something which could be shared. Moreover, propositions are not concrete, unlike external objects, in the sense that we can perceive external objects but we cannot perceive propositions in the same way. The third realm, as opposed to the realm of things and the realm of ideas, is therefore introduced as a shelter for Fregean propositions where the residents are objective but distinct from things in the external world. The observation that two statements $a = a$ and $a = b$ having the same truth-value but different cognitive value leads Frege to draw a distinction between sense and reference. Frege argues that if the sense expressed by '=' is taken as a relation between the reference of the names 'a' and 'b', there would be no difference between $a = a$ and $a = b$. So, it is natural to think that something other than the reference of the expressions explains the phenomena. Frege proposes that for any expression, complete or incomplete, we can associate senses or modes of presentation with it, apart from its reference. In the case of sentences, their senses are regarded as abstract and objective. Now, how do we use Frege's conception of propositions to explain the difference between $a = a$ and $a = b$? Roughly, given that the sense of a can be distinguished from the sense of b , the proposition expressed by $a = a$ is

constituted by the senses of a and $=$, and the proposition for the latter is constituted by the senses of a , $=$ and b . By compositionality, the meaning of a sentence (in this case, the proposition) is constituted by the meanings of its constituents and its structure. We can therefore conclude that $a = a$ and $a = b$ express different propositions, given that the sense of a is different from the sense of b .

The above elaboration seems less than satisfactory in some way. We have, more or less, assumed that the constituents of the proposition expressed by a sentence are also senses, and yet an explanation of their nature and a detailed characterisation of the relation between the senses of sub-sentential expressions and the proposition has not been given. More specifically, the ontological question has not been addressed. Consider the proposition that Socrates is wise. Do we have the proposition as a whole first, and arrive at the propositional constituents of sub-sentential expressions, i.e. the sense of ‘Socrates’ and the sense of ‘being wise’, by applying some semantic analysis? Or do we have the propositional constituents of sub-sentential expressions first and compose propositions in terms of these constituents? In other words, which are more basic, propositions or propositional constituents? Furthermore, there is an independent question of whether the relation between propositional constituents and propositions is part-whole, argument-value, or something else. These ontological questions about Frege’s theory of propositions will be the main concern in the next section.

6.2.1 Propositions and Propositional Constituents

Fregean propositions are objects which have unity and representational features. They are abstract (independent of human beings), eternal (time-less), and capable of being true or false (truth-bearers). Roughly, the constituents of a Fregean proposition can be classified into two groups: senses of names and senses of predicates. Although the name-sense and the predicate-sense are essentially different in virtue of their *completeness* or *saturatedness*, they belong to the same ontological category.⁸ The relation between a linguistic expression E and the sense S is that S is *expressed by* E . This should serve as a preliminary exposition of Fregean propositions and their constituents. I shall now turn to some fundamental theses concerning Fregean propositions:

The meanings [references] of the parts of a sentence are not parts of the meaning [reference] of the sentence. However: The sense of a part of the sentence is part of the sense of the sentence.⁹

⁸Frege argues that not every part of a proposition can be complete or saturated, because it would not be possible to explain predication if otherwise. If the sense of predicates were complete or saturated, we would find no proper distinction between a sentence and a mere list of names.

⁹Reck and Awodey (2004), p.87

We can regard a sentence as a mapping of a thought: corresponding to the whole-part relation of a thought and its parts we have, by and large, the same relation for the sentence and its parts. Things are different in the domain of reference. We cannot say that Sweden is a part of the capital of Sweden.¹⁰

...a thought can be split up (*zerlegt*) in many ways, so that now one thing, now another appears as subject or predicate. ... [W]e must never forget that different sentences may express the same thought.¹¹

I do not believe that for any judgeable content there is only one way in which it can be decomposed, or that one of these possible ways can always claim objective preeminence.¹²

It is astonishing what language can do. With a few syllables it can express an incalculable number of thoughts, so that even a thought grasped by a terrestrial being for the very first time can be put into a form of words which will be understood by someone to whom the thought is entirely new.¹³

These five quotes, I believe, are among the most often cited quotes when the relation between Fregean propositions and their constituents is discussed. We may summarise the above in the following three theses:

- (1) (**BBT**) Building-Block Thesis: Fregean propositions are composed (compounded) of their constituents in the building-block style.
- (2) (**MAT**) Multiple Analysis Thesis : A Fregean proposition can be split up or analysed in multiple ways.
- (3) (**PWT**) Part-Whole Thesis : For each Fregean proposition, the propositional constituents are part of it.

As it stands, there is no agreed interpretation of the above theses. However, I shall briefly discuss one way of elaborating Frege's theory of propositions. We may begin with two readings of (**BBT**). The strong reading suggests that propositional constituents are more fundamental than propositions, in the sense that a Fregean proposition exists just in case its constituents exist. To understand (**BBT**) in this way also complies with the principle of compositionality, which says that the meaning of a sentence is determined

¹⁰Beany (1997), p.275 (Notes for Ludwig Darmstaedter)

¹¹Beany (1997), p.188 (On Concept and Object)

¹²Frege (1980), p.101 (Letter to Marty)

¹³Frege (1977), p.55 (Compound Thoughts)

by the meaning of its constituents and its structure.¹⁴ Meanings of sentences are often regarded as compositional in order for a language to be learnable. Since propositions are the meanings of sentences, (one of the Minimal Roles), it is clear that propositions should also satisfy the principle of compositionality or similar principles. In a way, Russellian propositions do satisfy this interpretation of (**BBT**) because a singular proposition would not exist if the object it is about does not exist. However, according to the weak reading, (**BBT**) is compatible with either propositional constituents or propositions being more fundamental, since it is understood as restricting the relation between propositional constituents and propositions. That is, it is not possible that two propositions are identical and yet have different constituents. It can also satisfy the principle of compositionality, if the phrase ‘is determined by’ is understood as denoting a function from the constituents to the proposition. Thus, even if propositions comply with the principle of compositionality, this does not require the propositional constituents to be more fundamental. What, then, is Frege’s verdict on whether propositions or propositional constituents are fundamental? I think that Frege is inclined to accept that propositions are more fundamental in his later work. In 1919, Frege writes,

What is distinctive about my conception of logic is that I begin by giving pride of place to the content of the word ‘true’, and then immediately go on to introduce a thought as that to which the question ‘Is it true?’ is in principle applicable. So I do not begin with concepts and put them together to form a thought or judgement; I come by the parts of a thought by analysing the thought.¹⁵

The recognition that propositions are more fundamental is compatible with another thesis, (**MAT**), which says that a Fregean proposition can be analysed in multiple ways. It is important to recognise that Fregean propositions possess this feature, since it is indispensable in explaining how different sentences can be used to express the same proposition. An example is that even though the sentences ‘Peter envies John’ and ‘John is envied by Peter’ have different subjects and predicates, they still express the same proposition. This, however, is merely an elementary example, and the theories of propositions which we have seen so far should be able to explain how the two sentences may express the same proposition.¹⁶ A more difficult case is whether a sentence with a name (a singular sentence), a sentence with an existential quantifier (a particular sentence) and a sentence with a universal quantifier (a universal sentence) can express the same proposition. Frege

¹⁴There are some issues with how we ought to formulate the principle. For further discussions, see Szabó (2000) and Szabó (2013).

¹⁵Beaney (1997), p.362 (Notes for Ludwig Darmstaedter)

¹⁶Not for King, though. As shown in Chapter 5, King would say that these two sentences express two different propositions.

says that it is possible, although no example is given.¹⁷ I am not sure whether we should extend **(MAT)** this far, although it is in principle compatible with Frege's claim.

Finally, **(PWT)** suggests that the relation between a Fregean proposition and its constituents is a part-whole, but non-mereological, relation. It is obvious that the proposition that Irene loves Sherlock and the proposition that Sherlock loves Irene are different, but in a sense, they have the same constituents. It seems that propositions violate the axiom of the uniqueness of composition.¹⁸ Therefore, if the relation between propositional constituents and propositions is still part-whole, then it must be non-mereological in the classic sense. Of course, we may argue that they do not have the same constituents by taking the propositional structure as one of the propositional constituents.¹⁹ How to understand **(PWT)** and incorporate it into a theory of propositions is itself an interesting question, but I have no space to pursue it here. Now I shall briefly consider how Frege would answer some of the Three Questions, especially the Composition Question. With respect to the unity question, Frege explicitly claims that not all parts of a proposition can be complete, otherwise they will hold aloof from one another. The idea is that the incomplete parts of propositions can play the role of unifying other complete parts of propositions, and thus a proposition is essentially a unity, not a collection of complete things. We have seen that the Russellians do not have a good answer to the unity question, but is the Fregean proposal better? Dummett (1973) argues that the question is spurious for Frege, because Frege does not regard concepts and the senses of predicates as abstract objects. Rather, the complete parts and the incomplete parts will fit naturally.²⁰ However, in a sense, this does not solve the unity question because what we have, though not a collection of complete things, is a collection of complete and incomplete things. And it is hard to see how this is satisfactory. Now, with respect to the decomposition question, I believe that **(MAT)** already tells us how to decompose propositions. There is, however, a difficulty if **(BBT)** and **(MAT)** are both held in a theory. **(BBT)** seems to imply that two propositions are identical iff they have the same constituents and the same structure. I believe that the implication is somewhat intuitive, since there is no counter-example in any of the theory of propositions discussed above. Yet, the implication is in conflict with **(MAT)**. According to **(MAT)**, a proposition can be analysed into different sets of constituents and structures. By the implication of **(BBT)**, there

¹⁷See Frege (1960), p.49.

¹⁸Lewis (1991) characterises the axiom as follows: x and y are identical unless there is something to make the difference between them by being part of one but not the other. See Lewis (1991), p.79, footnote 8, and Lewis (1986a) for defence of the axiom.

¹⁹Koslicki (2008) defends the combination of the mereological notion of parthood and an Aristotelian notion of objects, according to which material objects, in general, have two parts: the formal and the material. Perhaps we can also regard Fregean propositions in a similar way.

²⁰See Dummett (1973), p.175.

would be different propositions. However, we start with only one proposition. How could that be? I shall examine the difficulty carefully in section 6.2.2 and discuss two solutions proposed by Geach and Dummett in sections 6.3.1 and 6.3.2, respectively.

6.2.2 Ramsey's Problem

At face value, there is an internal conflict between **(BBT)** and **(MAT)**. Roughly, given that propositions are constituted by propositional constituents and that propositions can be analysed in multiple ways, there is a puzzling consequence that two different sets of constituents should constitute different propositions, and yet they may very well be the products of analysing the same proposition. Ramsey (1925) seems to be the first one to identify the puzzle when he argues that there is an 'incomprehensible trinity' of propositional constituents with respect to the proposition expressed by aRb , since the following three analyses seem equally good: (1) a , R , and b . (2) a and Rb . (3) aR and b . Of these three sets of constituents, there are three related propositions:

[O]ne asserts that the relation R holds between a and b , the second asserts the possession by a of the complex property of 'having R to b ', while the third asserts that b has the complex property a has R to it. These must be three different propositions because they have three different sets of constituents, and yet they are not three propositions but one proposition, for they all say the same thing, namely a has R to b .²¹

Ramsey claims that the result is intolerable and thus is a refutation of the existence of complex properties. The argument can be reconstructed as follows:

- (A1) Propositions are identical iff they have the same propositional constituents and the same structure.
- (A2) The proposition that aRb may be analysed into three different sets of constituents and structures.
- (A3) According to (A1) and (A2), there are three different propositions.
- (A4) There is only one proposition, namely aRb .

Thus, we reach a contradiction. Strictly speaking, the question which Ramsey has in mind does not apply to Fregean propositions automatically since it is about the existence of complex properties. Provided that Fregean propositional constituents are not properties, unlike Russellian propositional constituents, there seems to be no harm in accepting

²¹Ramsey (1925), p.405-6

complex Fregean propositional constituents in the same way that the existence of complex predicates is accepted. Yet the question can come in a new form: given that a Fregean proposition aRb can be multiply analysed, we have three sets of propositional constituents corresponding to the analyses above. However, if two propositions are identical in virtue of the identity of propositional constituents and the structures, it is obvious that these propositions are not identical. Now we shall examine each premise of the argument: (A1) is implied by the standard interpretation of **(BBT)**, and (A2) is an application of **(MAT)** to the proposition that aRb . (A4) is a bit more interesting. Ramsey seems to say that there is only one proposition because they *have the same truth-condition*. That is, the three propositions say ‘the same thing’. However, if that is the case, then the Fregeans need not worry about the problem. For the Fregeans are known for distinguishing propositions which are true in the same circumstances or possible worlds. A classic example is that ‘ $2+2=4$ ’ and ‘There are infinitely many prime numbers’ express different propositions, although they are true in the same worlds. But things become puzzling at this stage. Should the Fregean reject (A4) and insist that there are three different propositions? Such a rejection would be motivated by holding firmly to (A1) and (A2). However, to say that there would be three different propositions because there are three analyses of a proposition seems absurd. The absurdity can be demonstrated as follows: presumably, the proposition that Hesperus is Phosphorus has three different analyses, in the way that aRb is analysed. If each different analysis leads to a different proposition, any sentence which is capable of expressing a proposition would be semantically ambiguous, provided that the proposition expressed can be multiply analysed. This is not acceptable. Yet, if the Fregean rejects (A3), one of the first two premises, (A1) or (A2), must also be rejected.

To my mind, if one wants to hold both **(BBT)** and **(MAT)**, there are at least three possible *Fregean* ways to answer the problem.²² (1) To argue that the conflict can be resolved with a different interpretation of **(BBT)**. (2) To argue for a different understanding of **(MAT)**. (3) To argue that **(BBT)** and **(MAT)** are not in conflict mainly because they apply to different dimensions of propositions. Each solution has its price, which will be examined shortly.

Now, let me restate the problem in a general form: for any theory of propositions which endorses **(BBT)** and **(MAT)**, two different sets of propositional constituents and structures cannot guarantee that there would be two different propositions if they are put together. The case is not so if one of them is rejected. For those who accept only **(BBT)**, two different sets of constituents and structures always result in different propositions. For those who accept only **(MAT)**, the identity condition for propositions may have

²²I have not excluded the possibility of solving the problem in other ways.

nothing to do with the propositional constituents. However, provided that Frege indeed accepts both theses, the sheer difference between two sets of constituents and structures would not suffice to show that there are two different propositions. The consequence is counter-intuitive because we are accustomed to the thought that two propositions are different iff there is a difference in the constituents or in the structures. Although someone might want to argue against **(MAT)** because it leaves the identity conditions for propositions in obscurity, a Fregean should accept **(MAT)** for two reasons. Firstly, in order to carry out logical inferences and reasoning, it must be the case that a proposition can be analysed in various ways. Secondly, in relation to the first reason, we would have a direct answer as to why ‘ a has a relation R to b ’, ‘ a has a complex property Rb ’ and ‘ b has a complex property aR ’ express the same proposition. However, the price to pay is that the difference of two sets of propositional constituents no longer entitles us to say that there would be two different propositions if they are put together.

6.3 Analysis and Decomposition

6.3.1 Geach’s way out

A way to resolve Ramsey’s problem is to reject (A1) and thus **(BBT)**. There are two possible ways of doing it:

1. We may reject that the relation between propositional constituents and propositions is the building-block style.
2. We may reject that propositions have any constituents or structure.

It appears to me that Geach (1975) favours the first view, for he extends the function-argument distinction, which is supposed to hold at the reference level, to the sense level.²³ At the reference level, the view is that concepts, as the reference of predicates or incomplete expressions, are regarded as functions which map objects to the True or the False. Similarly, Geach claims that the sense of a (monadic) predicate also plays the role of mapping the sense of a name to a proposition. The advantage of this view is that we have a unifying account of the compositionality of sense and reference. Roughly, the compositionality principle at the sense level says that the meaning of a sentence is *determined* by the meaning of its constituents and the structure, and at the reference level, it says that the reference of a sentence is *determined* by the reference of its constituents and the structure. However, usually it is understood that for Frege, the determination

²³I believe that his application of function-argument to the sense level is made to deal with Ramsey’s problem.

relation in the compositionality of sense is different from the one in the compositionality of reference. Consider a proper part or a fragment of a sentence. Frege holds that its sense is part of the proposition, but its reference is not part of the reference of the sentence. Under Geach's interpretation, the determination relation is the same since he offers an explanation of the relation between the constituents of propositions in terms of the function-argument distinction. Functions are the senses of predicates, and the values of functions are propositions. We then have an isomorphism between the structure of senses and the structure of reference, which might be a desirable property.

Now we shall see how Geach's account would reply to the questions in section 6.2, i.e. What are Fregean propositions and their constituents? How can we solve the unity question and the decomposition question? The unity question is answered by the function-argument analysis. The sense of a predicate is defined as a mapping from the sense of a name onto a proposition. Moreover, Geach can decompose propositions in terms of the function-argument analysis. For example, the number 16 can be the value of the square function for the argument 4, or it can be the value of the function x^4 for the argument 2. In both cases, we have the number 16 as the object mapped by different functions and arguments. It also follows that 16 can be decomposed or analysed in terms of different functions and arguments. Similarly, even if Geach rejects (**BBT**), there is still a criterion of identity for propositions. That is, arguments and functions might differ as in the case of the number 16, but the values of the functions are the same value. It seems that Geach offers a plausible defence for the Fregean theory of propositions with respect to the Composition Question. Yet this does not come without a price: the doctrine 'The reference of the parts of a sentence are not parts of the reference of the sentence. However: The sense of a part of the sentence is part of the sense of the sentence'²⁴ must be given up. The reason is that the argument and the function are not parts of the value. For instance, in the case ' $1 + 1 = 2$ ', the function $+$ (plus) is not part of the value 2, even though 1 may be said to be part of 2 if we consider numbers as ordinals, but in the case ' $2 - 1 = 1$ ', 2 and the function $-$ (minus) are not part of 1.

6.3.2 Dummett's way out

In Dummett (1981), an alternative solution to Ramsey's problem is offered. According to Dummett, the following four claims are the core of the puzzling problem:

A Theses

1. A thought may be analysed in distinct ways.

²⁴Reck and Awodey (2004), p.87

2. A thought is not built up out of its component concepts; rather, the constituents of the thought are arrived at by analysis of it.

B Theses

1. The senses of the parts of a sentence are parts of the thought expressed by the whole.
2. A thought is built up out of its constituents, which correspond, by and large, to the parts of the sentence expressing it.²⁵

It is pointed out that two incompatible consequences can be derived from the above theses. According to the A theses, the relation of whole to part is modelled on the relation between a country and its regions, while according to the B theses, the relation of whole to part is modelled on the relation of a molecule to its components atoms. We may have different ways of dividing a country for different purposes (geological, economic, cultural, etc). Geach's solution is that propositions are decomposed in the same way that we decompose the reference of a sentence, which is the function-argument decomposition. Given that in general, the value of the function contains neither the argument nor the function, Geach has rejected the entire B theses. Is there a possibility of retaining both theses?

Supposedly, there is a tension, if not a contradiction, between the A theses and the B theses. The tension can be reflected in the ontology of Fregean propositions implied by the two theses. According to the A theses, the proposition is primitive, and we can decompose propositions in many ways to arrive at the propositional constituents. According to the B theses, a proposition is composed of propositional constituents in combination with certain principles, and thus the existence of propositions depends upon the existence of its parts. The ontological question of propositions is therefore a great problem for the Fregean.

Dummett defends an account which preserves both A and B theses by distinguishing 'analysis', which is unique and requires us to identify the principal predicate or operator in the proposition, and 'decomposition', which is multiple and is merely a particular way of viewing it.

Analysis lays bare what is involved in a grasp of the sense of the sentence; an understanding of the sentence as built up in that way from its ultimate constituents therefore demands an antecedent understanding of the constituents. But decomposition, in any non-trivial case, presupposes a prior grasp of the sense of the sentence; the components arrived at by its means are not, in

²⁵Dummett (1981), p.261

general, genuine constituents of it, and our understanding of the sentence is therefore independent of our recognition of the complex predicate as occurring in it.²⁶

Following Frege's method of forming predicates,²⁷ it follows that, in principle, there are a number of ways of decomposing a proposition. For instance, the proposition that John loves Mary can be decomposed as the object John standing in a relation, loving, to the object Mary, the object John possessing a property of loving Mary, or the object Mary possessing a property of being loved by John. It seems that, using this method, we are allowing complex properties, but the commitment to complex properties will make the identity of propositions become dubious, as demonstrated by Ramsey's example above. If we use the Fregean method of discovering the predicate of the sentence, then the problem raised by Ramsey is unavoidable. There are presumably two solutions to the problem. First, we may provide a criterion of identity for propositions which does not appeal to their *immediate* constituents. Second, we may reject the possibility of analysing the proposition in multiple ways. It seems to me that Dummett appeals to the second solution, if the term 'analysis' is understood along the above lines. There is a unique analysis which we can apply to propositions in order to arrive at their propositional constituents. It is the basis of how we understand sentences. On the other hand, decomposition does not give us genuine propositional constituents. Thus, the question of the criterion of identity for propositions can be answered.

Dummett provides a decent characterisation of propositional constituents (the result of analysing propositions) and propositional components (the result of decomposing propositions). Although it explains how A-theses and B-theses can be compatible, I find it unsatisfactory for several reasons. Despite the fact that I have no decisive objection to Dummett, I shall argue that the distinction between analysis and decomposition is a relative one rather than an absolute one. If it is a relative one, there are some reasons to doubt whether there is a unique and absolute analysis of propositions. In other words, it is possible that what appears to be an analysis is in fact a decomposition. Of course, it does not follow that there is no analysis, but only that what counts as an analysis is subject to some principles. The difficulty is that given two equally plausible but incompatible principles, we can have two ways of analysing a proposition without the resources to decide which one is the right one. Given that the analysis of a proposition is supposed to be unique, there is no analysis but merely ways of decomposing a proposition. This is what I take to be a more plausible claim.

For the sake of discussion, let me stick to the distinction of propositional constituents

²⁶Dummett (1981), p.278

²⁷See Dummett (1973), Chapter 2

and propositional components, provided by Dummett. I shall begin with why the distinction between the analysis and the decomposition of propositions is not an absolute one. There are, I think, two ways of saying that an analysis of a proposition is absolute.

- (1) An analysis of a proposition is absolute iff every result of decomposing a proposition, if it is not identical with the constituents, can be further decomposed into its constituents.
- (2) An analysis of a proposition is absolute iff there is some principle C such that we can arrive at constituents by applying C to the proposition.

They are both plausible at face value. Isn't it the case that the result of analysing the proposition that aRb is in fact a , R and b , provided that the other two ways of decomposing it can be further decomposed? It seems that in doing so we apply certain principles which stop us from further decomposing the proposition. However, I think that we must avoid understanding an analysis as absolute in the trivial sense. That is, in accordance with every theory of proposition, there is an analysis which complies with each theory. The trivial sense implies that even a theory which rejects that propositions have any analysis can be said to have an *analysis* of propositions. The more substantial sense is to say that although propositions may admit multiple ways of decomposition, only one of them is superior or, in Frege's terms, 'can always claim objective preeminence'.²⁸ It might be superior in the sense suggested by Dummett or in the sense that it carves the nature at its joints. Even so, I think that the distinction between analysis and decomposition is still not absolute. Let us consider a proposition, $\neg P$. Presumably, its analysis should give us \neg and P . But, it is not hard to imagine that we can have an analysis in terms of \perp and \rightarrow , but not \neg . That is, the proposition ought to be analysed as P, \rightarrow, \perp . Presumably, these are two different sets of propositional constituents, so that proposition cannot have both as the result of analysis, even though they are equivalent and inter-definable. Of course, it is true that if \neg is primitive or fundamental, we should analyse the proposition $\neg P$ as having two constituents. But it counts as an analysis simply because \neg , rather \perp , is primitive, in some theories. It seems that there is no reason to prefer one way rather the other since both ways carve the nature at its joints and we can grasp the proposition in either way. The example shows that there could be two competent analyses of the same proposition, so the first way of saying that an analysis is absolute fails.

With respect to the second way of saying that an analysis is absolute. Is there any C which serves our purpose? I have no proof against the existence of C , but I am sceptical about whether C can really offer us what we want even if we grant its existence.

²⁸Here I assume that one of the ways of decomposition is an analysis. Otherwise, it is hard to see how to define an analysis from decomposition in a non-circular way.

Consider Frege's analysis of propositions, as expounded by Dummett. It is clear that in providing an analysis, we already have a grasp of what the constituents are. And what counts as the constituents is, presumably, supported by some principle(s). In this case, one of the principles may be the distinction between unsaturated and saturated senses which is reflected upon the distinction between concept and object. It is clear that the distinction between concept and object is not universally accepted. In fact, it is a particularly contentious distinction because it leads to the concept horse paradox. Roughly, the paradox can be characterised as follows:

- (C1) Concepts are not objects.
- (C2) 'The concept horse' is a singular term.
- (C3) Singular terms denote objects, not concepts.
- (C4) Thus, the concept horse is not a concept.

Dummett (1973) argues that we can accept the posit of unsaturated or incomplete objects, but it alone would not solve the concept horse paradox. In fact, what is more important is the acceptance of higher order quantification. Dummett's suggestion is simply that for any expressions e , regardless a singular term or a concept word, 'what e stands for' is just the reference ' e '. We should not take the use of 'concept' or 'function' as real concept words for expressing the categorical distinctions Frege had in mind. In order to keep the distinction between concept and object, what is required is the introduction of second (or higher) order predicates (concept-words) and, presumably, quantifiers, i.e. objects are predicated by first order predicates and quantified by first order quantifiers and concepts by second (or higher) order ones. When we want to say the concept horse, what we are saying is 'what the concept horse stands for', and the latter expression can be analysed into 'A horse is something which everything either is or is not'. The corresponding logical formula would be $\exists F \forall x (Fx \vee \neg Fx)$. Its problem, identified by Wright, is that if 'the concept horse', 'is a horse', and 'a horse is something which everything either is or is not' co-refer, it seems that we can substitute one in place of the other in an expression without changing its truth-value, following the Reference Principle.

Reference Principle: Co-referential expressions should be inter-substitutable *salva veritate*, at least in extensional contexts, and inter-substitutable *salve congruitate* in all.²⁹

For example, 'Tully' and 'Cicero' refer to the same thing, given that 'Tully is a Roman orator', we can substitute 'Cicero' for 'Tully' and obtain 'Cicero is a Roman orator'. The

²⁹Wright (1998), p.240

truth-value of the first expression would be the same as the second. It is obvious that the case is obscure with respect to predicates. Suppose that the two expressions ‘is a horse’ and ‘the concept horse’ co-refer, after we have obtained a *granum salis*, it would not be intelligible to substitute ‘is a horse’ in ‘Shergar is a horse’ with ‘the concept horse’, which would result ‘Shergar the concept horse’; an expression with no sense and thus does not have the same truth-value with the original one.³⁰ Of course, this does not show that the distinction between saturated and unsaturated senses is ill-founded. Perhaps it isn’t. However, we have some reason to doubt whether we should analyse propositions in the Fregean manner. It seems more plausible to see it as a way of decomposing propositions. Therefore, it is reasonable to doubt whether there is a clear distinction between analysis and decomposition.

6.4 Towards A Fregean Theory of Propositions

In what follows, I shall defend a theory of propositions in which propositions are *sui generis*, multi-analysable, and necessary beings. Roughly, I propose that propositions are *sui generis* because all the reductive proposals we have seen so far fail to answer the Three Questions in a satisfactory way. The thesis that propositions are necessary beings is a natural consequence of my defence of the argument presented in Plantinga (1983). Besides, I also find the necessitation of the truth schema convincing, which also leads to the acceptance of the necessary existence of propositions. However, the multi-analysability of propositions seems to be the least discussed and the most contentious point, which I shall elaborate in full detail later.

In addition to multi-analysability, I also hold that propositions are more basic than propositional constituents, for it seems quite obvious that we cannot speak about what

³⁰The inquiries to the paradox can be categorised into the following three camps:

1. The concept horse paradox is a problem concerning predicate reference with some specific semantic principles. It is, not only for Frege, but for anyone who accepts, for example, the Reference Principle. Moreover, Frege’s solution, which requires his readers to have some *granum salis* to admit the awkwardness of language, to the paradox is not satisfactory if we hold the Reference Principle. (See Wright (1998), Hale and Wright (2012), and MacBride (2011).)
2. It is a problem for Frege and his followers, who insist that there is an objective and a sharp distinction between predicates and names reflected upon their senses as well as references. One need not commit to the Reference Principle in order to generate the paradox. Therefore, Frege’s response might or might not be successful, but it is irrelevant to the Reference Principle. (See Textor (2010).)
3. The problem rests on a distinction, which is made explicit by Wittgenstein, on *saying* and *showing*. We can *say* what concepts and objects in general are, but we can only *show* why a particular object is not a concept and *vice versa*. (See Geach (1976) and Noonan (2006).)

structures and propositional constituents are, independently of ways of analysing propositions. Yet, for those who hold that propositions are constituted by propositional constituents and structures, the claim is quite implausible. ‘Of course we can have propositional constituents and structures independent of propositions’, they say. However, we have seen that for those who think that propositions can be constituted by propositional constituents, the unity question is unavoidable and unanswerable. Amongst the theories of propositions we have considered so far, only the possible-world accounts can avoid the question. I do not want to commit to the possible-world accounts of propositions, mainly because they cannot answer the Three Questions in a uniform manner. In any case, the current proposal should not be regarded as the only way, apart from the possible-world accounts, to avoid the unity question. For example, the theory of propositions defended in Merricks (2015) is an equally good response to the unity question, but I dismiss it for other reasons.

By taking propositions to be more basic than propositional constituents, in the way that what propositional constituents are would depend on analyses, we are able to avoid the unity question and to account for the possibilities of different ways of analysing or decomposing propositions. The unity question is no longer a threat because propositions are basic, i.e. they are not built out of their constituents. The multi-analysability of propositions, which is endorsed by Frege, can also be preserved. However, the current account is different from Dummett’s interpretation of Frege, since Dummett argues that each Fregean proposition has a unique and absolute set of constituents and structure, and propositions are multi-analysable only with respect to their *components*, not *constituents*. On the contrary, I think that if we accept the multi-analysability of propositions, it is reasonable to say that Fregean propositions have neither unique structures nor unique constituents. But we have to be cautious that it is not equivalent to the claim that they have no structure or that they can have any structure which we may think of. On the one hand, to say that propositions have no structure and no constituents is to say that they are simple entities. Ludicrous as it may sound, the thesis is defended in Merricks (2015). It implies that propositions do not have any connection or relation, i.e. the proposition that Socrates is wise and the proposition that Plato is wise have no constituent in common, given that both are unanalysable simple entities. On the other hand, the claim that propositions can have any structure which we can think of has the opposite result—any two propositions could have some constituents in common. Both results are regarded as unappealing, if we are able to draw logical inferences among propositions.

Yet, there is one possibility which I have not explored. One might say, ‘We can call all of these multiple ways in which we analyse propositions the unique and absolute analysis’. The idea is that different analyses of the proposition that aRb would result in different

sets of constituents, but there is a limit. Suppose that the proposition that *aRb* has only four possible analyses. We have the constituents *a*, *R* and *b* according to an analysis A_1 ; *aR* and *b* according to A_2 ; *a* and *Rb* according to A_3 ; and perhaps *aRb* according to A_4 (such that it is a constituent of itself). It follows that the proposition has six constituents, *a*, *R*, *b*, *aR*, *Rb* and *aRb*, and four respective structures. Even if we drop A_4 for some reason, still, there are at least five constituents and three structures. This also qualifies as a unique and absolute analysis, the opponent says. I think that I am not in any substantial disagreement with the opponent. We both agree that propositions can be multi-analysed and that there is a certain constraint or limit to the analyses we can have. Whereas I choose to characterise the feature as saying that propositions do not have a unique and absolute structure, the opponent characterises it as saying that propositions do have a unique and absolute structure, and that it is the collection of the results of all the available analyses. As I see it, the disagreement merely lies in how we interpret the term ‘propositional constituent’. For me and other philosophers we have seen so far, the proposition that *aRb* can never have the above five or six constituents, and yet if the opponent insists that it should be the case, then our disagreement seems to lie in different uses of the term ‘propositional constituent’.

I take myself to be defending a Fregean theory of propositions because it bears many similarities to Frege’s theory of propositions. However, there are also some important differences, so let me begin with those differences. Firstly, Frege seems to hold that cognitive differences imply semantic differences; at least this is suggested not only in Frege’s puzzle, but also in the case of Gustav Lauben.³¹ But what are semantic differences? I submit the following characterisation: two sentences are semantically different iff they express different propositions. So, Frege’s claim is that if there are cognitive differences within a set of sentences, then those sentences would express different propositions. Plausible as it may sound, I disagree with the thesis. The reason is simple; the identity and the difference of propositions, just like the identity and the difference of objects, does not pertain to how they are presented. An object may appear to be round from one angle and appear to be oval from another angle, but it does not follow that there are two objects. Similarly, a proposition may be cognitively engaged in different ways, and this mere fact does not entitle us to say that there are many propositions.³² However,

³¹Roughly, Frege uses the case to say that speakers who associate different senses to ‘Gustav Lauben’ or know Gustav Lauben in different ways would associate different propositions to the sentence ‘Gustav Lauben was wounded’. I shall discuss the case in more detail below.

³²One may defend the Fregean claim that cognitive difference implies semantic difference by appealing to the Intuitive Criterion of Difference presented in Evans (1982). The principle says that the proposition associated with a sentence must be different from the proposition associated with another sentence, ‘if it is possible for someone to understand both sentences at a given time while coherently taking different attitudes towards them’. (p.18-19) But Evans also stresses that the criterion cannot fully determine whether two propositions are identical or not because the criterion ‘can be brought to bear only when

this should not be read as a denial of the thesis that the sentences ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphors’ express different propositions. I think they do, but it is at best remotely relevant to their cognitive differences. I say ‘remotely relevant’ rather than ‘irrelevant’ because it seems plausible to say that it is the other way around: semantic differences imply cognitive differences. Thus, there are still some connections between the two. Secondly, although Frege is a proponent of the multi-analysability of propositions, Dummett interprets Frege as distinguishing ‘analysis’ and ‘decomposition’ such that the multi-analysability holds for decomposition, but not for analysis. If for each proposition there is an analysis, it implies that there is a structure and a set of propositional constituents which are superior to others, such that they are unique. I do not hold that propositions have a unique structure or a unique set of constituents, and thus can be regarded as blurring the distinction between analysis and decomposition. There are several consequences of this view, which I shall discuss below. Thirdly, I take truth and falsity as properties of propositions, rather than objects. It is common to see Frege as holding that sentences refer to the True and the False—a thesis which many regard as implausible. Dummett (1973) says, ‘The identification of truth-values as the referents of sentences, taken together with the thesis that truth-values are objects, led to a great simplification of Frege’s ontology, at the price of a highly implausible analysis of language’.³³ In order to save the doctrine, Dummett further suggests that we should understand the doctrine as an analogue of names having objects as their referents, but not as a special case. Since issues around interpretations of Frege’s philosophy are not the main concern of the thesis, I shall not go into the debate. Instead, I shall point out that by taking truth and falsity as properties of propositions, we can construct possible worlds in the same manner as some actualists, i.e. possible worlds would be maximal consistent sets of propositions, which is a nice feature.

With all the differences, one might wonder in what sense the current proposal is Fregean. Perhaps it isn’t. But I think that it qualifies as a Fregean theory in the following two ways: first, propositions are *sui generis*, i.e. they are not reduced to or constructed out of other entities. Secondly, propositions are multi-analysable. Given that the multi-analysability of propositions is one of the most distinguished characteristics of Frege’s theory of propositions, I identify myself as developing a Fregean theory of propositions. Yet, that propositions are multi-analysable does not entail that any analysis would be good. To use a familiar analogy, reality can be carved up in different ways, but only some ways carve nature at its joints. Figuratively speaking, propositions may have more joints than reality, hence they are multi-analysable, but it is still not the case that every way of

the same subject is entertaining the thoughts [propositions] at the same time’. (p.21) Perhaps a weaker claim may suffice, but I am not sure how it ought to be formulated.

³³Dummett (1973), p.183

carving would do. Here is an example: suppose that there is a fact that Socrates is bald and wise and there is also a proposition that Socrates is bald and wise. Suppose further that the property being bald and the property being wise are natural properties, so we should analyse the fact as having the constituents, Socrates, being bald, a conjunction *and*, and being wise. Alternatively, we can analyse it as having two atomic facts as constituents: Socrates is bald and Socrates is wise. With respect to the proposition that Socrates is bald and wise, the case is, however, slightly different, although whatever is available to the analysis of facts seems to equally hold for propositions as well. It can be analysed as having the following four propositional constituents: *Socrates*, *being bald*, a conjunction *and*, and *being wise*. Equally, it can also be analysed as having the following two propositional constituents: *Socrates* and *being bald and wise*, but it cannot be analysed as having the following three constituents: *Socrates*, *being bald and*, and *being wise*. The last analysis seems unnecessary and inappropriate. It shows that there should be some constraints on the analyses. Now, some may argue that the fourth one should not even count as an analysis, since *being bald and* is non-sensical, and each analysis should give us meaningful parts of propositions. I agree that if an analysis is good, then it ought to give us meaningful parts, but it is not my assumption that every analysis can only analyse a given proposition into meaningful parts. The fact that every analysis can give us meaningful parts of propositions, as I understand it, is non-trivially so. I believe that some analyses are good, and others are often too useless to serve any substantial purpose. The task is to show how to characterise good analyses.³⁴

Although propositions are multiply analysable and these ways of analysing propositions are on a par in the sense that none of them is superior to the others, some restrictions on what counts as an appropriate analysis are required. For the moment, I can only give a provisional answer that the restrictions must be relevant to our demands for propositional constituents. What are these demands? At least, they include demands from logical considerations. I have no justification for the claim but I find it plausible to say that when a decomposition of a proposition is required, either we are making inferences or we want to discern what propositional constituents there are. The discussion around the proposition that *aRb* serves as a paradigm. A question now arises: do propositions have structures other than logical structures? One may contend that logical structures are not enough, and suggest that it is also natural to analyse propositions in terms of their linguistic structures. The suggestion is intelligible for those who think that propositions

³⁴Readers may find that this resembles the debate on whether properties should be sparse or abundant. If one wants to reject that the fourth analysis is an analysis at all, it is likely that one is thinking about a sparse view of analyses. I shall not justify why an abundant view of analyses is held in the present thesis. In any case, as long as we can distinguish good analyses from bad ones, it suffices for present purposes.

do have linguistic structures. I don't, so linguistic structures would not do. What, then, are the limits of analysing propositions? A tentative answer is that propositions have logical structures, and thus they are multi-analysable in terms of their logical structures.

There is, however, an interesting consequence of the current theory—the difference of propositional constituents or structures is not sufficient for the difference of propositions. Philosophers, who believe that propositions are constituted by propositional constituents and structures, always take the difference of propositional constituents or structures as necessary and sufficient for the difference of the propositions to which they belong. In other words, any two sets of propositional constituents and structures differ iff two propositions differ. The sameness of propositional constituents and structures is also sufficient and necessary for the sameness of propositions. The case is not so for the theory defended here. Consider the proposition that aRb . Because of multi-analysability, it can be analysed in multiple ways, which results in different sets of constituents and structures. Thus, it implies that the difference of propositional constituents and structures is not sufficient for the difference of propositions. That is, the proposition can be analysed as having the constituents a , R and b , and it can also be analysed as aR and b . Although constituents resulting from the former analysis are different from the constituents of the latter analysis, they are analysed from the same proposition. Therefore, the difference of constituents or structures is not sufficient for the difference of propositions.

Now comes the difficult question about whether the difference of propositional constituents or structures is still necessary for the difference of propositions. In other words, is it possible for two different propositions to have the same propositional constituents and the same structure? It is hard to give a direct argument for an affirmative or a negative answer. But let us suppose that it is not necessary. It follows that the difference in sets of propositional constituents and structures is neither sufficient nor necessary for the difference in propositions. It then opens a possibility: even though the propositional constituents, *Socrates* and *being wise*, differ from the propositional constituents, *Tully* and *being an orator*, they could be the result of analysing the same proposition. In fact, it has similar consequences to the claim that there are no restrictions on what counts as an analysis. The result seems unfavourable. I have argued that it is not the case that there is always something, i.e. constituent(s), in common between any two propositions. So, it follows that if two propositions are different, there are some differences in their propositional constituents or structures, though the reverse does not hold.

The multi-analysability of propositions also copes with the need to explain propositional attitudes. Let us first turn to Frege's puzzle. With respect to the sentence that Hesperus is Hesperus and the sentence that Hesperus is Phosphorus, do they express the same proposition or different propositions? According to the Russellians (except Fine)

and the Neo-Russellians, they express the same proposition. According to Frege and other Fregeans, they express different propositions because one can believe the former without believing the latter. In other words, cognitive differences imply semantic differences. I said earlier that this is one of the tenets on which I depart from Frege, and I used an argument by analogy: we would not say that there are two objects just in case there is an object which appears to be round, from one perspective, but square from another. Similarly, propositions should not be multiplied simply because there are cognitive differences between sentences. So, how am I going to deal with Frege's puzzle? I agree that they express different propositions, not because they have different cognitive values, but because there is an analysis which is available to the proposition that Hesperus is Hesperus but unavailable to the proposition that Hesperus is Phosphorus. The former is an instance of the law of identity, $\forall x(x = x)$, but the latter is not. In other words, even if we accept that 'Hesperus' and 'Phosphorus' refer to the same thing in all possible worlds, the former can be regarded as a logically necessary proposition, while the latter is metaphysically, but not logically, necessary. Therefore, given that there is indeed a semantic difference, we may solve Frege's puzzle in the present account. But doesn't the above explanation conflict with the thesis that the difference of constituents or structures is not sufficient for the difference of propositions? I think not. The proposition that Hesperus is Hesperus is different from the proposition that Hesperus is Phosphorus because there is an analysis which is available to the former but not to the latter. It is clear that the above remarks on multi-analysability do not create any problem here.

This might not be satisfactory for one who is faithful to Frege, as the following objection may be raised:

I still don't see how you can justify the claim that 'Hesperus = Hesperus' and 'Hesperus = Phosphorus' express different propositions. Frege can because he takes senses to be modes of presentation, and the senses expressed by 'Hesperus' and 'Phosphorus' are different. We call the first star appeared in the evening 'Hesperus', and the last star appeared in the morning 'Phosphorus'. However, you have not given any account of what propositional constituents are, although you clearly don't take them to be modes of presentation.

It is true that I do not see propositions and propositional constituents as modes of presentation. However, as I said, the proposition that Hesperus is Hesperus has an analysis which is not available to the proposition that Hesperus is Phosphorus—the former can be analysed as an instance of the law of identity, but the latter cannot. Perhaps one can reject the analysis which I have articulated. For the sake of the argument, let us suppose that there are cases where multiple analysis of propositions could not tell the cognitive difference. What should I say here? Following Plantinga (1974, 1978), I am inclined to

say that in these Fregean propositions, propositional constituents are *individual essences*, properties and relations, or perhaps surrogate of these entities. An individual essence of x is a property which is essential to an object x , and a property F is essential to an object x iff there is no possible world in which x exists but lacks F . The question now becomes: Do ‘Hesperus’ and ‘Phosphorus’ express different individual essences, even though they refer to the same object? In Plantinga (1974), the answer is negative:

If my account is accurate, ‘Hesperus’ and ‘Phosphorus’ express essences. This conceded, it is plausible to suppose that they express the very same essence.³⁵

I agree that if this is how we should think of names and individual essences, then there would indeed be a serious problem. The sentences ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’ would seem to express the same proposition, which is a very Russellian consequence. I certainly don’t hold that these two sentences express the same proposition, so I must depart from Plantinga (1974) and argue that ‘Hesperus’ and ‘Phosphorus’ express different individual essences. Here is the argument. It seems true that although an individual essence of an object is such that there is no possible world in which the object exists but lacks the essence, an object may have multiple individual essences. For instance, the property of being the last star to appear in the morning (at the actual world) and the property of being the first star to appear in the evening (at the actual world) are two distinct properties, but they are both individual essences of Venus. I think that once we can accept that an object may have multiple individual essences, we thereby allow the possibility that different proper names may express different individual essences, even though they refer to the same object. That is, ‘Hesperus’ and ‘Phosphorus’, although they are co-referential, express different individual essences of Venus, which can be used to account for the difference of the propositions expressed by ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’. In fact, Plantinga (1978) withdraws his earlier remarks on the relation between names and individual essences:

In *The Nature of Necessity* I unwisely conceded that if proper names express essences, then it is plausible to suppose that different proper names of the same object express the same essence. . . . Now perhaps this is not wholly implausible; it does have about it, however, a certain air of arcane. In any event, a better explanation [of cognitive difference between ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’] is available, once we recognise that different names of the same object may express different essences.³⁶

³⁵Plantinga (1974), p.83-4

³⁶Plantinga (1978), p.135

This will serve as a rough characterisation of what propositional constituents are, when there is no analysis available.

Note that this is not a defence of the thesis that cognitive differences imply semantic differences. Quite the contrary, certain cases which are cognitively different have nothing to do with the propositions expressed. One instance is that the same proposition can be cognitively different if it is analysed in different ways and agents grasp distinct ways of analysing it. However, in cases where no alternative analysis is available, how should we explain the cognitive differences? If we allow that the same name is able to express different individual essences when *used* by different speakers, it is possible to explain cognitive differences without thinking that there is a semantic difference. Needless to say, this is not the only case. Any two different propositions would be cognitively different as well, because there is no analysis such that these two propositions are analysed as having the same constituents and the same structure, e.g. there is no available analysis in which the proposition that Socrates is wise and the proposition that Tully is a Roman orator are regarded as having the same constituents or the same structure. In sum, since I have rejected that cognitive differences imply semantic differences, it is possible that two sentences are cognitively different and yet express the same proposition. Overall, this is not faithful to Frege, for Frege would say that the cognitive difference is explained by the fact that there are two different propositions, rather than one single proposition with two different analyses.

Now, let us consider the following case from Frege:

Suppose further that Herbert Garner knows that Dr Gustav Lauben was born on 13 September 1875 in N. N. and this is not true of anyone else; suppose, however, that he does not know where Dr Lauben now lives nor indeed anything else about him. On the other hand, suppose Leo Peter does not know that Dr Lauben was born on 13 September 1875 in N.N. ... Herbert Garner does not associate the same thought with the sentence 'Dr Gustav Lauben was wounded' as Leo Peter wants to express with it.³⁷

For Frege, the sentence 'Dr Gustav Lauben was wounded' would express indefinitely many propositions if there are indefinitely many agents each of whom knows Dr Gustav Lauben in a different way. This is essentially an application of the thesis that cognitive differences imply semantic differences. However, if a sentence can express indefinitely many propositions, it is semantically ambiguous. More specifically, the term 'Gustav Lauben' is semantically ambiguous. I do not think that the result is favourable, but I want to stay neutral with respect to the issue. According to the present account, there

³⁷Beaney (1997), p.335

could be a cognitive difference regardless of whether the sentence expresses the same proposition or different propositions for different agents. We can see that the latter case is essentially Frege's explanation of cognitive difference. What about the former? It is different from the Hesperus-case in the sense that there is only one simple sentence, and thus only one logical form, Fa . It appears that no analysis can tear them apart to explain their cognitive difference. The difficulty, I believe, can be somewhat mitigated once we realise that just like an object may have different shapes relative to the perspective from which we see it, a proposition may be cognitively different in virtue of the ways in which agents engage them. An example may help convince readers who are unhappy about the analogy. Suppose that the sentence 'Hesperus is a planet' is not semantically ambiguous and expresses the proposition that Hesperus is a planet. Moreover, as we have seen earlier, the object Hesperus may have different individual essences. Now, there is a question whether the same name can express different individual essences of the same object when it is *used* by different agents. I think that it can. Just as 'Hesperus' can express the property of being the first star appeared in the evening, the property of being discovered to be identical to Phosphorus, or their conjunction, different agents may use the name 'Hesperus' while associating different essences to the object Hesperus. The same reasoning can be applied to the case of Dr Gustav Lauben as well. However, one might think that this is rather an explanation of cognitive difference in terms of semantic difference. Aren't they different propositions, if the individual essences associated to the same name by different agents are different? I disagree. Given our assumption, the sentence 'Hesperus is a planet' still expresses the proposition that Hesperus is a planet, it is our *use* of the sentence, via which we grasp the proposition, which creates cognitive differences. We seem to use the same sentence to express the proposition that Hesperus, being the first star appeared in the evening, is a planet, or the proposition that Hesperus, being identical to Phosphorus, is a planet. While this might be true, it does not follow that the sentence 'Hesperus is a planet' expresses different propositions, although it *does* follow that our use of sentences, or our way of engaging propositions, might create cognitive differences even when only one proposition is under consideration.

However, one may reject the above explanation on the ground that I have not told him, in the Gustav Lauben case, whether the cognitive difference is explained by the fact that there are two propositions or it is explained by the fact that there is only one proposition but there are different analyses, or ways of engaging with the proposition. I confess that I have not given a verdict on the present case, unlike the Hesperus-case in which I argued that the proposition that Hesperus is Hesperus is different from the proposition that Hesperus is Phosphorus precisely because the analyses which they have are different or the individual essences expressed by 'Hesperus' and 'Phosphorus' are different. However,

I will excuse myself from giving such a verdict in this case for the following reasons: the question whether we should explain the cognitive difference amongst different speakers for the same sentence ‘Dr Gustav Lauben was wounded’ in terms of semantic difference is an issue which cannot be simply dealt with in a theory of propositions. My thesis is that if two propositions are different, then there is an analysis which can tell the difference, and it cannot be extended to the thesis that if two sentences are cognitively different, then the difference can be explained in terms of semantic differences. Moreover, this also restricts the scope of explanation, i.e. not every case of cognitive difference can have an explanation within the theory. There are situations in which I have no verdict because the theory developed has no answer. For instance, there is no answer in the current account with respect to whether the Gustav Lauben sentence expresses the same proposition or different propositions in Frege’s example. However, the theory can provide an explanation once we decide which is the case.

I shall now turn to issues of the compositional features of languages. It is often said that a language which is not compositional is not learnable. For instance, Davidson (1965) says,

When we can regard the meaning of each sentence as a function of a finite number of features of the sentence, we have an insight not only into what there is to be learned; we also understand how an infinite aptitude can be encompassed by finite accomplishments. For suppose that a language lacks this feature; then no matter how many sentences a would-be speaker learns to produce and understand, there will remain others whose meanings are not given by the rules already mastered. It is natural to say such a language is *unlearnable*.³⁸

Given that propositions are meanings of sentences, propositions should satisfy the principle of compositionality. If propositions are *sui generis* and do not have unique and absolute structures, how can they be compositional? I think that the demand that meanings ought to be compositional is mostly related to the epistemological aspect of propositions, i.e. drawing an inference, explaining the cognitive difference between $a = a$ and $a = b$, or learning new propositions, etc. The reason is that we cannot grasp the proposition as a whole, but only via its parts. In other words, we come to know propositions via analyses. In this sense, there could be a canonical way of grasping propositions, so that two or more agents grasp the same proposition if and only if they grasp it in the same way. Once this is recognised, the demand that meanings should be compositional does not undermine the present account.

³⁸Davidson (1965), p.8

The Fregean theory of propositions defended can be summed up as follows: Propositions are *sui generis*, multi-analysable, and they exist necessarily. Propositions do not have unique and absolute structures or constituents. Rather, every proposition can be multi-analysed, though it does not mean that any analysis is allowed. For the moment, it is suggested that a good analysis should be logical. That is, we should analyse propositions in terms of their logical structures. Since propositions can be multi-analysed, we cannot identify propositions in terms of propositional constituents and structures. It is possible that two different sets of propositional constituents and structures are results of two different analyses of the same proposition. In terms of fundamentality or basicness, propositions are more fundamental than their constituents in the sense that the existence of propositional constituents depends on the way we analyse or decompose a proposition. In this sense, the propositional constituents are parts of propositions. Contrary to Frege, however, cognitive differences do not imply semantic differences. Therefore, while the objects of propositional attitudes are propositions, we cannot say that the proposition that *P* is different from the proposition that *Q* because one can believe that *P* without believing that *Q*. However, the reverse does hold—if *P* is different and logically independent from *Q*, then one can believe that *P* without believing that *Q*, without being irrational or inconsistent. It follows that whether *P* is different from *Q* is not a cognitive matter, but is subject to the analyses we have for propositions.

I would like to end this section with a quote from Dummett (1981), who writes:

A mathematical tree is a complex structure: yet we can represent it both as consisting of nodes, subject to a partial order of a certain kind, or as consisting of paths, having certain relations of overlap. A thought might have a complexity of this type, allowing it to be analysed in either of two equally good ways; and in that case, two possibilities would be open regarding sentences that expressed it. . . . there is no intrinsic difficulty in the idea that a thought may admit of different possible analyses; no difficulty impelling us to say that there must be many thoughts that are yet only one thought, having constituents that are nevertheless not constituents. But, granted that there is no intrinsic difficulty in the idea, it does not appear to have been Frege's.³⁹

It is debatable whether Dummett is correct in not attributing the thesis to Frege.⁴⁰ Since this is not a thesis on the exegesis of Frege, I cannot but agree with Dummett that my proposal may not fit into Frege's original intent. However, I see myself as developing the theory of propositions along Fregean lines.

³⁹Dummett (1981), p.279-80

⁴⁰Landini (1996) agrees with Dummett but Currie (1985) doesn't.

6.5 Answering the Three Questions

6.5.1 The Composition Question Revisited

We shall now turn to the Three Questions. In what follows, I argue that the Fregean theory of propositions defended can best answer the Three Questions amongst the theories of propositions which we have seen so far. First of all, it can preserve the notion of propositional structure and propositional constituents in a familiar manner, like other structured theories of propositions, but it avoids the unity question, which is fatal to them, by proposing that propositions are fundamental entities, and propositional constituents are arrived at by analysis. Recall that the unity question is formulated as follows: what distinguishes a proposition from a set of propositional constituents? In section 2.1.1, it is argued that the mere existence of propositional constituents does not suffice to constitute a proposition. If propositional constituents are fundamental, something else is needed. A propositional ‘glue’ may thus be posited, and yet if the glue is another propositional constituent, we are back to the unity question. The question calls for an explanation of the relation between propositions and propositional constituents.

The decomposition question, ‘How should we decompose propositions to get propositional constituents, if at all?’, is only a minor question for the Russellian theories of propositions, since the proposition ought to be decomposed in accordance with the corresponding ontological categories. Even if a proposition, e.g. Socrates is wise and humorous, might suggest the decomposition would result in a collection of an object and a conjunctive property, being wise and humorous, the Russellians can dismiss the alleged conjunctive property by saying that conjunctive properties are not admitted in the ontology. Similar reasoning can be applied if we want to dismiss negative properties resulting from decomposing negative propositions. Yet, the problem is, or appears to be, severe for Frege. Frege is known for the distinction between unsaturated and saturated senses, and this may alleviate the force of the unity question in some sense. Yet, the concept horse paradox is a problem for anyone who wants to embrace the distinction.

It might be said that theories of propositions according to which propositions are structured entities are doomed to failure in the light of the predicament of the Russellian and the Fregean accounts. To recapitulate, the Russellians may have an easy time with the decomposition question, but then the unity question comes in by the back door. The reverse holds for the Fregean. The unity question and the decomposition question are like Scylla and Charybdis for structured theories of propositions. The Fregean theory of propositions defended here comes to the rescue. It is able to provide an explanation of propositions and propositional constituents without suffering from the unity question. Propositions do not have unique and absolute structures or constituents, but they are

multi-analysable. As for the analyses of propositions, one proposition may be analysed in different ways, so it is possible that two different sets of propositional constituents are resulted from two ways of analysing the same proposition. Thus, it is not the case that propositions are different iff their propositional constituents are different, given that the constituents are the products of analysis. Of course, not every analysis is a viable one. To analyse the proposition that Socrates is wise and Plato is a philosopher into the propositional constituents <Socrates, being wise and, Plato, being a philosopher> is definitely mistaken.

Finally, given that propositions are abstract and *sui generis* entities, it is natural to see them as necessary beings. This view, although contested by Stalnaker, is more or less well-received. For instance, E. J. Lowe once said,

Many abstract objects—such as numbers, propositions and some sets—appear to be necessary beings in the sense that they exist ‘in every possible world’ . . . Indeed, possible worlds themselves, conceived of as abstracta—for instance as maximal consistent sets of propositions—surely exist ‘in every possible world’.⁴¹

I have no argument for the necessary existence of propositions except the one made by Plantinga (1983) which I have discussed and tried to defend in Chapters 3 and 4. Since propositions are necessary beings, they can also satisfy the necessitation of the truth schema: Necessarily, the proposition that *P* is true if and only if *P*. With this, I conclude that the Fregean theory of propositions defended can meet the demands of the Composition Question. The unity question does not apply to the theory, since propositions are fundamental. We cannot form propositions from a set of propositional constituents. The decomposition question is answered by the thesis that propositions are multi-analysable. Each good analysis, I submit, is logical. Furthermore, it is compatible with Plantinga’s argument because propositions are necessary beings.

6.5.2 The Representation Question Revisited

Eklund (2016) points out that the Representation Question is not a real problem for the Russellian or the Fregean theories of propositions. In reply to the challenge found in Soames (2014a), Eklund says,

But first, it is in principle open to a friend of Frege or Russell to maintain that while her account does not properly explain the representationality of propositions, representationality is a primitive feature of propositions, not

⁴¹Lowe (1998), p.248.

amenable to further explanation. Second, more specifically, for Frege, propositions (or what he called Thoughts) are not the only abstract intrinsically representational entities. Senses of individual expressions are also intrinsically representational. And Frege is no more able to explain their representationality than he is able to explain the representationality of propositions.⁴²

According to the Fregean theory defended here, propositions are by nature representational, i.e. they are truth-bearers. It is also obvious that Russell himself holds the same thesis. So it is not clear why they should answer the Representation Question. The following example may help to illustrate the point. I use **S** and **Q** to represent the speakers.

S: The map represents London in a certain way.

Q: How does it do that?

S: Well, because whatever is in the landscape of London can be represented by some symbols in it.

Q: What is it about the drawings or pictures of this paper, as it is used in a certain community, that makes it a map of London, rather than a map of Paris or merely a doodle?

S: It may be that there is a certain convention in the community that the actual distance between any two points in London is correctly reflected on the map, although on a small scale.

I take the above line of thought to be what Soames and King have in mind when they argue that the Fregean and the Russellian theories of propositions cannot explain the representational feature of propositions. However, there is a crucial difference between the example considered here, which is about maps and the regions they represent, and propositions. Maps are not *inherently* representational. A map of London is rather a piece of drawing which we *use* to represent London in a certain way. Propositions, on the other hand, are inherently representational, at least for Frege and Russell. It is therefore not clear why the Representation Question should arise for Fregean propositions at all.

Moreover, although propositional constituents in the Russellian theories of propositions are not representational because they are objects, properties, and relations, Fregean senses are by nature representational. One might try to argue that non-representational objects can never be representational, but I doubt whether it would be successful. Even if colour properties, like being blue, are not representational, we can represent a political party by the colour blue. Also, the imaginary argument does not apply to the Fregean

⁴²Eklund (2016), p.14. The pagination is for the online-access version because the print version has not been published at the time of writing.

theory defended here, provided that the constituents of Fregean propositions, namely individual essences, properties or their surrogates, are inherently representational in the sense that we say a proposition represents things as being thus-and-so, and it is true if things are thus-and-so. It should be noted that here we are relying on the technical sense of ‘representation’, characterised in 2.2.1.

A side issue is that we use sentences to express (Fregean) propositions. In other words, sentences can be used to *represent* Fregean propositions. Given that Fregean propositions are also representational such that they represent ways the world (or a portion of a world) is or might have been, there are two levels of representations going on. Now, it is intrinsic to Fregean propositions that they are representational, but this is not so for sentences. Intuitively, the Representation Question may strike again: how do sentences manage to represent propositions? Some sort of explanation is required if one wants to provide a systematic philosophy, but the aim here is to defend the thesis that the Fregean theory of propositions is not susceptible to the Representation Question, as characterised by Soames and King. There is, however, another interesting question on the relation between Fregean propositions and things they represent: What makes Fregean propositions true or false? This is related to the discussion about truthmakers in section 6.4. Frege did not provide an explicit explanation of what makes Fregean propositions have the truth-value they have, but this is another question which does not fall in the scope of this discussion.

6.5.3 The Attitude Question Revisited

Finally, I turn to the Attitude Question. Of the puzzles relating to beliefs, I shall consider three of them; Frege’s puzzle, Kripke’s puzzle and the puzzle about *de se* attitudes.

I take Fine’s formulation of Frege’s puzzle, discussed in Chapter 3, to be a paradigmatic presentation of the puzzle, although the sentences used to represent Frege’s puzzle, ‘Cicero is Cicero’ and ‘Cicero is Tully’, are different from Frege’s original example. Fine characterises the puzzle as follows:

- (F1) Cognitive Difference: The two identity sentences are cognitively different.
- (F2) Cognitive Link: If the sentences are cognitively different, then they are semantically different.
- (F3) Compositionality: If the sentences are semantically different, then the names ‘Cicero’ and ‘Tully’ are semantically different.
- (F4) Referential Link: If the names ‘Cicero’ and ‘Tully’ are semantically different, they are referentially different.

(F5) Referential Identity: The names ‘Cicero’ and ‘Tully’ are not referentially different.⁴³

Fine says that while the Fregean would reject (F4), he would reject (F3). However, the theory defended here rejects not only (F4), but also (F2). With respect to the Gustav Lauben case, I argue that it is not the case that if sentences are cognitively different, then they are semantically different, i.e. they express different propositions. The reason is that cognitive differences can occur even if two sentences are expressing the same proposition. The case is similar to the example of an object which appears to be round from one perspective and square from another. There is only one object, but cognitive experiences may suggest that there are two objects. The case would be the same with propositions. However, there are some cases of cognitive differences which can be attributed to semantic differences. For example, if the sentences ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’ are cognitively different, the cognitive difference may be attributed to the difference between the proposition that Hesperus is Hesperus and the proposition that Hesperus is Phosphorus.⁴⁴

Now, how shall we deal with Kripke’s puzzle? Remember that Kripke uses the puzzle to show that one of the challenges against the Millian theory of names is not successful. The challenge is that according to the Millian theory of names, the semantic content of a name is nothing but its referent. Thus, if ‘Cicero’ and ‘Tully’ co-refer, substitution of the occurrence of ‘Cicero’ in an expression with ‘Tully’ should not change its truth-value.⁴⁵ The principle of substitutivity is usually understood as follows:

Substitutivity: If two expressions have the same semantic value or reference, then substitution of one for the other in a third expression does not change the truth-value of the third expression.

In making belief reports, we use a similar technique like substitution. It is the failure of substitutivity which creates a problem for giving a compositional semantics for belief reports. First of all, it is observed that the principle of substitutivity often fails in belief reports. Although, for Frege, substitutivity is supposed to work in belief reports, it is argued that the reference of an expression embedded in propositional attitudes is different from its customary reference. In combination with the above discussion, there is now a problem. The problem is that we find no two expressions which have the same sense and thus can be substituted in the context of propositional attitudes. Frege predicts

⁴³Fine (2007), p.34

⁴⁴One might wonder whether the current theory would also predict that the proposition that London is pretty and the proposition that Londres est jolie are different. I believe not. The reason is that there seems to be no analyses available to distinguish them, unlike the proposition that Hesperus is Hesperus and the proposition that Hesperus is Phosphorus

⁴⁵Sentences such as ‘Tully’ has five letters are ignored, since the term ‘Tully’ in the sentence is not used to refer to some object, but is merely mentioned.

that in the Gustav Lauben case, even the same sentence ‘Dr Lauben was wounded’ is associated with different Fregean propositions because the two agents know Dr Gustav Lauben in different ways. It is questionable whether Leo Peter can report Herbert Garner as believing that Dr Lauben was wounded if Leo Peter does not associate the same proposition with that sentence as Herbert Garner does. However, my objection to the Millian theory of names and thus to Russellian theories of propositions is not that the principle of substitutivity fails in belief contexts. Rather, it is that the Russellian theories of propositions have no viable solution to the unity question. The puzzle may be a problem common to all theories of propositions, and thus it does not seem to be a problem to be dealt with in a theory of propositions. Does this imply that the objects of beliefs or propositional attitudes are not propositions? I think not, but it does imply that even if we know what the objects of beliefs are, the correctness of belief reports is still somehow underdetermined.

This might be unsatisfying because I have not given any explanation of how belief reports would go. This may be true, but let me try to elaborate a bit. I take *believe* to be a two-place relation between the agent and the proposition believed. For instance, if John stands in the belief relation to the proposition that Tully is an orator, then the proposition that John believes that Tully is an orator is true. Does it follow that John also believes that Cicero is an orator? The answer is negative because, according to the present theory, the proposition that Tully is an orator is different from the proposition that Cicero is an orator. However, it does not imply that we cannot use the sentence ‘Cicero is an orator’ to denote the proposition that Tully is an orator. Extra care must be taken when problems around beliefs are discussed because sometimes they are about which sentence can report the proposition, a question which I regard as interesting but only remotely relevant to a theory of propositions.

Finally, there is a puzzle, presented by Perry, about *essential indexicals* which Lewis called *irreducibly de se* attitudes.

I once followed a trail of sugar on a supermarket floor, pushing my cart down the aisle on one side of a tall counter and back the aisle on the other, seeking the shopper with the torn sack to tell him he was making a mess. With each trip around the counter, the trail became thicker. But I seemed unable to catch up. Finally it dawned on me. I was the shopper I was trying to catch.⁴⁶

At the moment of realising that he was the messy shopper, he would stop making a mess and tried to clean it up. It is clear that there would be a change in behaviour. Moreover, it seems that a change in belief can explain a change in behaviour. Thus, it is likely

⁴⁶Perry (1979), p.3

that there is a change in belief. The final belief which Perry came to have is the belief expressed by the sentence ‘I am making a mess’. Perry argues that the occurrence of ‘I’ in the sentence cannot be replaced by other designators without changing the belief expressed by the sentence. Thus, ‘I’ seems to be an essential indexical and resists the substitution of other co-referring terms. Lewis (1979) also argues that even if there are two gods who are omniscient, both of them will come to have knowledge which they did not have before when they realise which of the two they are. Given that they are omniscient, they already knew all the propositions. And given that they would come to know something new, not all knowledge is propositional. This paves the way for Lewis to argue that the objects of belief are properties.

What should I say about both cases? They put me in a tight spot since I agree with most of what they say. The claim is that sentences with indexicals, such as ‘I am the messy shopper’, are unlikely to express propositions because the sentence is true when uttered by Perry, but false when uttered by others. Propositions, on the other hand, should not alter the truth-value because they are supposed to be true or false absolutely. However, I think that there is no harm in saying that the sentences in question still express propositions, albeit the propositions would be different if the sentences were uttered by a different person. The problem with this response is that we cannot associate intelligible propositional constituents to indexicals. Perhaps we can, if we allow the term ‘I’ to express individual essences. We all know that the sentence ‘I am a philosopher’ uttered by Perry has different truth-conditions from the sentence ‘I am a philosopher’ uttered by me, even though we utter the same sentence. The theory of propositions defended here is compatible with the view that the same sentence, free of semantic and syntactic ambiguity, is still capable of expressing two or more propositions.

I think that the two gods in Lewis’s tale, if omniscient, will know which of the two they are, so there is no new knowledge to be learnt for an omniscient being. I hold that indexical sentences and *de se* attitudes do express propositions. We may disagree about what makes the proposition true. Suppose we know that the proposition that I am a messy shopper, uttered by Perry, is different from the proposition that Perry is a messy shopper, uttered by the same person. It follows that the fact that Perry is a messy shopper cannot make the former true. This may indicate that in specifying the truth-conditions of *de se* attitudes, the truth-schema does not work, but it is not conclusive. Cases of cognitive difference and propositional attitudes are elusive in the sense that we are unable to point out what is really the case. The Fregean theory of propositions does not help, in this aspect. However, if the problem is to be solved in a certain conception of propositions, I believe that the current theory will have enough resources to accommodate the problem.

Now I turn to the granularity question. How fine-grained should propositions be? On the one hand, we want, or are at least inclined, to distinguish propositions which are equivalent, such as necessary propositions. On the other hand, it is not pleasant to have a theory where it is not possible that two distinct sentences, regardless of whether they differ in their structures or in their constituents, can express the same proposition, for it is less plausible to have the distinction of propositional constituents and propositional structures based on syntactic or grammatical distinctions. The granularity question is about how and when we say two propositions are the same or different. My hunch is that the question is ill-formulated. We want propositions to be fine-grained or coarse-grained only relative to certain demands. Sometimes they are in conflict, other times they are not. If a theory of propositions is to serve this purpose, it must be able to match the demands of fine-grainedness and coarse-grainedness. For that purpose, the multi-analysability of propositions is able to meet the demands. Thus, whether propositions should be fine-grained or coarse-grained is left open, but the theory of propositions is able to accommodate whatever is the case.

Lastly, there is an objection that according to the theory, there are many propositions, perhaps too many. Now, what does it mean to say that there are too many propositions? It might mean that it violates common sense, or that we can do the same task with fewer propositions. Violating common sense is sometimes a serious issue, but on this occasion, it is not. Some of the inquiries into the nature of propositions which we have seen so far may fit with common sense, others may violate common sense in a bad way. But none of them is able to answer the Three Questions in a uniform way. Unless we are willing to give up certain questions, e.g. following the Neo-Russellians who propose that the unity question can be answered once we explain why propositions are representational, there is no reason to say that the common sensical theories of propositions are superior. Furthermore, common sense is not univocal and thus is not a reliable test when deciding philosophical theories. With respect to the challenge that we can do the same or more with a commitment to fewer propositions or fewer entities, I can only say such a possibility has not been realised in any of the theories we have considered so far. The theoretical benefits of the Fregean theory of propositions are worth it. They cannot be had for less.

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